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ORIGINAL LECTURES.

CLINICAL LECTURE

ON ACUTE INFLAMMATORY RHEUMATISM.

Delivered at the Hospital of the University of Pennsylvania

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Reported by WILLIAM H. MORRISON, M.D.

GENTLEMEN,—This young woman, 27 years old, married, came to us three weeks ago, giving the following history. Her mother died of some hepatic trouble at the age of fifty. Her father died at the age of thirty-seven, of phthisis. She has had two brothers, one of whom died of heart-disease, while the other is in good health. She has six sisters, one of whom has had rheumatism, and another is supposed to have some cardiac trouble, but we do not know that it is organic. This woman had scarlet fever when a girl, and has had attacks of quinsy, and for some years has been troubled from time to time with attacks of palpitation of the heart. Four years ago she had a severe attack of rheumatism, and three months ago she had a second attack. Two weeks before she came to the hospital the joints again became inflamed, and there was considerable fever. The inflammation attacked several joints, and shifted from one to another. When she came here the fever had almost entirely subsided, and since then she has been almost absolutely apyretic. Despite this, there has been great pain and tenderness in the right elbow and shoulder and in both knees and ankles. The joints were painful on motion and tender on pressure. There was also redness and swelling of the affected parts. The day after admission, the middle finger of the left hand suddenly became swollen, and other joints of the fingers became involved. Since then she has been steadily improving, and now is entirely convalescent. There is no fever; she has a good appetite; the digestion is fair; and the joints have gradually yielded to treatment. This has been an attack of rheumatism in a young woman whose family history points to a rheumatic diathesis.

I now wish to examine the heart by auscultation. There is a soft systolic murmur heard over the apex. It is very slight, and is not carried into the pulmonary artery. This murmur is then probably dependent on slight thickening of the edges of the mitral valve, preventing perfect closure of the leaflets, so that there is slight regurgitation. I attribute the murmur to this cause rather than to anæmia, for the reason that the patient is not very anæmic, and this systolic murmur is not carried into the pulmonary artery, as anæmic murmurs are apt to be continued. Anæmic murmurs are usually not strongest at the very apex, but over the body of the heart, and they are propagated upwards in the line of the great vessels. This murmur has its point of greatest intensity at the apex and is not heard in the upward direction, so that, from the absence of evidences of anæmia and from the character of the murmur, I am disposed to attribute it to slight organic change rather than to alteration in the blood.

This case in its history illustrates some interesting points about rheumatism. Rheumatism is said to be a diathetic disease, and by that is meant that it is a disease which occurs in certain persons rather than in others, and that these persons exhibit a tendency to it; but it is difficult to define what this tendency is. The attempt has been made to describe a certain physique as associated with the rheumatic diathesis, but I cannot say that this accords with clinical experience. Persons presenting all kinds of physical types may possess the rheumatic diathesis, but it is a peculiarity in the individuals which makes them liable to develop within their systems some irritative chemical substance, as a result of faulty digestion or assimilation. This affection illustrates a point to which I have frequently called attention, and that is the tendency to the internal or endogenous production of morbid principles which give rise to pathological states called symptoms. Rheumatism gives us perhaps the most typical illustration of this kind of affection. In this disease it seems to be an acid, and by some it is supposed to be lactic acid; but I have no

idea that it is exactly lactic acid. It is probably some complex, organic, acid substance which has not been and may never be thoroughly isolated. We judge that it is an acid because there appears to be an excess of acid in the system at the time of the attack. The urine is intensely acid, and there is a disposition to copious sweats, which are extremely sour: so that in every way it appears that the blood and juices of the tissues are saturated with some acid material.

Rheumatism occurs as an acute affection, and we give it the name of rheumatic fever, or acute inflammatory rheumatism. It may begin with a rigor, but more frequently there is simply a rise in temperature and the occurrence of pain in the affected joints. These joints become red and swollen, and are exceedingly tender and painful on motion. The affection may be limited to one joint, or it may involve a number. More commonly, the large joints, as the elbow, the knee, the wrist, the hip, and the shoulder, are affected, and there may be also some affection of the smaller joints, as those of the hands and feet. The temperature may rise to 102° or 103°. It presents slight variation during the day, but usually increases towards evening. Although there is fever, the skin is rarely dry; but, as I have stated, there may be profuse sweats. These are usually acid, and have a strong sour smell. The urine presents, in an intense degree, the characteristics of the febrile state. It is concentrated, and this is partly due to the drain of water by the profuse perspirations. It is very high-colored and strongly acid. This high color is not alone the result of the great concentration of the urine, but there is also an excretion of coloring-matter. This is associated with a rapid breaking down of the blood-globules, so that rheumatism is one of the acute affections which most rapidly produce anæmia. The tongue is coated, there is rarely much appetite, and there is usually great thirst, particularly for sub-acid drinks, such as lemonade, tamarind-water, and the like. As a rule, the bowels are torpid.

Rheumatism runs an exceedingly irregular course. We may say that, if left to itself, it generally lasts from four to six weeks; but, fortunately, we can control it to a certain extent by treatment.

One great peculiarity of this affection, and characteristic of it, is the behavior of the joints. The inflammation shifts from one to another, sometimes quite rapidly. To-day the elbow and wrist of the left side may be violently inflamed, and to-morrow the inflammation may have shifted to the right knee and ankle, while the previously-affected joints can be freely handled, although the redness and swelling may not have entirely disappeared. There is this marked tendency to involve joints successively. After it has left a joint, it may return: so that each joint may be inflamed several times. This, of course, prolongs the attack, and renders its course peculiarly trying and uncertain.

There are certain other peculiarities to which I must ask attention. Not only is there this tendency to recurrence during the attack, but rheumatism is one of those diseases in which one attack seems to render the system more liable to the disease, and recurring attacks are very common. This woman is now in her fourth attack.

Rheumatism is very liable to affect internal parts, particularly the serous membranes of the heart. Hence it is that the most serious complication that we dread in rheumatism — and the complication which gives to the disease much of its gravity—is endocarditis and pericarditis, particularly the former. Of all the causes of acute endocarditis, rheumatism stands by far the first.

Among other risks connected with rheumatism, I would mention the danger of hyperpyrexia. The origin of this is somewhat obscure. It evidently is not dependent, at least in most cases, upon the development of actual intracranial inflammation. It is probably due to a sudden failure of the heat-controlling centre, which, when exhausted, allows the development of an immense amount of caloric. Suddenly, when the patient is apparently doing well, the fever will begin to rise until a high temperature is reached. This is attended with severe cerebral symptoms, and may end in coma and death.

This disease, then,—so frequent in those who have the diathesis, so apt to recur, so uncertain and tedious in its course, attended with such serious danger of organic disease, such danger of hyperpyrexia and

alarming nervous symptoms, and, finally, so apt to run into a chronic form,—is a disease deserving of our most careful study, particularly in regard to its management.

The symptomatology of rheumatism renders its diagnosis very easy. It is only when rheumatic fever exists without arthritis that there is much difficulty in diagnosis. This occurs not rarely, especially in children. Cases where little children get fever and are evidently sick, and where no organic lesion is found, and there is no pneumonia, bronchitis, nor eruptive fever, are often cases of rheumatic fever without distinct inflammation of the joints. Such children dislike to move, and cry if much handled, and this would put one upon the track. In such cases, where there is no inflammation of the joints, there is often a greater tendency to inflammation of the membranes of the heart. I am constantly told, in cases of organic cardiac disease in young children, that the child has never had rheumatism. The origin of this cardiac trouble had been overlooked, because in the rheumatic attack the inflammation had been purely internal. This is another illustration of that important clinical rule regarding children, that we should never fail to make a thorough physical exploration in every case. So, too, I meet with rare cases of rheumatic fever in children and adults, particularly the latter, where the joints are not much affected, but where the nerve-sheaths, the membranes of the cord, and the membranes of the brain even, are the seat of the rheumatic inflammation.

The prognosis of rheumatism is exceedingly difficult; in fact, I do not know any disease in which you will be more constantly misled if you attempt to establish a positive prognosis. Even after a case has appeared to do well for some time, it may suddenly relapse. A change of weather may cause such a relapse.

There are some things connected with prognosis to which I should refer. Where the patient has had a previous obstinate attack, the prognosis in the individual attack is of course worse. In a first attack the prognosis is, to a certain extent, influenced by the violence of the inflammation of the joints and the height of the fever; yet the disease often proves more tedious where only one joint is affected than where a number are involved. The most favorable case is one in which a reasonable number of joints are simultaneously and moderately affected, and the inflammation remains quiet in these places.

In reference to the heart-complication, we usually have no guide for prognosis. It generally can be avoided by suitable care and treatment. In proportion as the diathesis is strong is the danger of cardiac complication greater. Where the heart has once been affected there is greater danger of its involvement in subsequent attacks.

We should always have before our minds the danger of hyperpyrexia. The cases in which I have seen this have certainly been associated with a marked tendency to nervous exhaustion, either from the prolonged course of the disease with considerable febrile action, or, as in the last two cases coming under my observation, from worry, anxiety, and depression of spirits preceding the attack of rheumatism. In the attack of rheumatism which subsequently occurred there was evident giving way of the heat-controlling power of the nervous centres and the development of intense hyperpyrexia; in one case controlled by prompt treatment, but the other proved fatal.

Now as to the treatment. In the first place, there is no disease in which cold, draughts, dampness, and changes of temperature require closer watching. The patient should be carefully put to bed and use the urinal and bed-pan from the beginning of the attack. He should be enveloped in light merino or flannel gowns, and, if the weather is severe, should be put to bed between blankets. I find that many of these patients wear light flannel night-caps to guard against the possibility of chilling the surface; but, on the other hand, the head becomes bathed with sweat, and if the temperature of the room changes they may become chilled in that way.

The food should be light and nutritious. I do not think that we can lay down any fixed rules for the diet of rheumatics. The cereal, farinaceous preparations, as gruel and porridge, with milk and broths, would indicate the diet to be aimed at. Heavy, greasy articles, meats and sweets, should be avoided. In some cases the

anorexia is so great that only liquids can be taken. We should, however, be careful to remember that this is a disease tending to exhaustion, and that the patient's strength must be maintained, and therefore a low diet is rarely judicious.

In regard to remedies. If the tongue is heavily coated, urine very dark, bowels constipated, and anorexia or even nausea present, we should give a short course of calomel and soda. This should be continued for a couple of days, until the bowels have been moved once or twice. If this is not called for, the patient should at once be put on full doses of salicylic acid or salicylate of sodium. Ten grains every three hours during the day and night would represent about the average quantity (sixty to ninety grains in the twenty-four hours). If the fever were high and the symptoms violent, we should give twelve or fifteen grains every three hours. This treatment should be continued three or four days, and if it is to do good, it will do it in that time. Some cases will not yield to it, but in many instances it acts like a charm, and the value of this remedy in acute inflammatory rheumatism is positively established. It is not a specific and not universally valuable, but it does relieve a considerable proportion of cases far more rapidly than any other drug. If, before its administration, we place the digestive tract in a good condition, the proportion of cases in which it does good will be further increased. In the present case salicylic acid acted very nicely. The drug rarely does any harm. If it should irritate the stomach, it must be stopped.

If the salicylate has been given for several days and the fever does not subside, the pain does not pass away, and the joint-inflammation is not improved, we should stop it; for, if continued, it is more apt to irritate the stomach and depress the patient than do other alkalies, and under these circumstances it is only doing the work of an alkali. We should then change to the bicarbonate or acetate of potassium, giving these in such doses and with such frequency as are indicated by the condition of the urine and the state of the stomach. Five grains of the bicarbonate with ten grains of the acetate of potassium may be given in water every three hours, and continued until the urine is more copious, lighter colored, and neutral. If a reasonable course of this treatment, continued for a week or ten days, does not cause a subsidence of the rheumatic symptoms, I abandon specific treatment and direct attention to the condition of the patient, giving quinine, strychnine, nitro-hydrochloric acid, and pepsin, to render primary assimilation as vigorous and perfect as possible. If we know anything about rheumatism, we know that it is connected with weakening of the power of assimilation. There is produced some irritative matter which, entering the system, produces these symptoms. If the derangement is so serious that the remedies I have recommended do not enable the system to react and throw off the disease, I abandon them and administer nerve and digestive tonics to improve the condition of primary assimilation. I have secured excellent results by this change of treatment in cases where, week after week, the salicylic acid and alkaline treatments have been pursued without positive benefit.

During this treatment the patient must be relieved of pain and enabled to sleep. Opium is the only drug which positively effects this. It is to be given in such doses as the state of the stomach and the intensity of the pain indicate. Very often a small hypodermic of morphia gives a longer and more complete relief from pain than opium by the mouth. Suppositories of opium may be used with advantage, as they do not injure the stomach. In many cases ten grains of Dover's powder will exert a relaxing, tranquillizing, and sedative effect which is exceedingly happy. If the case proves at all obstinate, we should never use the hypodermic injections, from the dread that the patient may become addicted to their employment. I never resort to hypodermic medication for the relief of pain except in the crises of acute disease, and I disguise the form of opium so that the patient may not be able to trace the relief of pain to any special drug. Subacute rheumatism is one of the affections which I have known frequently to lead to the opium habit.

We now come to local treatment. Of late years I have always begun the treatment of rheumatism with the application of a blister to the præcordia, allowing it to remain seven hours, following it with a poultice, and dressing with a simple unguent. I do this, in the first place, as a

preventive measure; and, secondly, I think that I have noticed that it modified the general symptoms. I think that I have seen amelioration of the symptoms follow the application of a blister to the præcordia, even where there was no recognizable affection of the heart. I also apply small blisters, one inch by a half inch, over the affected joints, applying them to the different joints in succession. I also apply chloroform-liniment, and cover the part with oiled silk. If I do not use blisters, I rub an ointment of veratrine and iodide of mercury over the inflamed joint. The ointment may consist of thirty grains of veratrine and forty grains of the proto-iodide of mercury to the ounce of cosmoline.

If endocarditis appears in the course of rheumatism, I abandon whatever treatment I may be employing and again apply a blister to the præcordia if that is not still sore. Internally I administer calomel, opium, and digitalis. When I have given as much calomel as I think proper, I substitute iodide of potassium and digitalis. The relief of the cardiac inflammation and the preservation of the integrity of the heart are of vastly greater consequence than the mere control of the joint-trouble; in fact, the patient has to remain quiet so long, until the heart has entirely recovered, that it makes little difference whether or not the joint remains inflamed a few weeks longer.

Lastly, when hyperpyrexia appears, I have found nothing sufficient to arrest it but the external use of cold water. The hyperpyrexia of rheumatism is more sudden in its onset and attended with greater cerebral symptoms than any other form that I know of save that which occurs in sunstroke and malignant scarlet fever. I have seen the temperature jump from 103° in the morning to 107.5° at night, attended with frightful maniacal delirium alternating with a tendency to coma. When the temperature begins to rise to 104° or 105° we should use full doses of quinine, or of salicylic acid, or of antipyrine, giving the remedy at short intervals and having a trained nurse or a physician to watch the effect. If this checks the rise, good; but if the temperature continues to go up, or if cerebral symptoms appear, then, whether or not there is violent inflammation of the joints, or even pericarditis or endocarditis, the patient must, without delay, be put in a cold bath. I have taken such patients from the bed, put them in the bath-tub and held them there, rubbing them with blocks of ice until they were cool, and have had their symptoms pass away while there, then carried them back to bed. The next day I have found them perfectly well, and even the inflammation of the joints gone. I have never seen any injurious results from this treatment, while I have seen life saved by it in at least five cases. I think, however, that by careful proper feeding, attentive nursing, and judicious treatment, hyperpyrexia can usually be avoided; but it may develop in cases such as I have mentioned, and, when it does, you must be prepared to meet it promptly.

ORIGINAL COMMUNICATIONS.

COCA-LEAF CIGARS AND CIGARETTES.

BY F. E. STEWART, M.D., PH.G.

I HAVE been experimenting for some time with the leaf of Erythroxylon Coca in the form of a cigar,—first, for the purpose of ascertaining whether the drug would thus produce its physiological effects, and, secondly, in view of a new therapeutic application. It is too soon yet to express a positive opinion in regard to the latter, but I have had sufficient experience with them to say something about the former; and as I find that others are already commencing to enter this field, I may be excused for calling the attention of the profession at this early date, my excuse being that I wish to receive what credit may accrue from my share in their introduction.

Some time after I commenced my experiments I found that Dr. Lewis Lewis, of this city, was employing coca in the form of a cigarette in the treatment of throat-affections with success, and, as he says that he has been using the drug in this way for nine years, he is entitled certainly to the credit of priority.

Dr. Lewis's cigarettes are composed partly of coca- and partly of tobacco-leaf. This has its advantages and disadvantages. Without discussing this point, however, I employed a cigar made of pure coca-leaf, with a wrapper of mild imported tobacco of fine quality, and a cigarette of pure

coca-leaf containing no tobacco, wrapped with the best quality of rice-paper. Those who do not object to the tobacco can use the cigars, while those who have objections to it can employ the cigarette; while for those who object to the tobacco wrapper and the paper wrapper also I prepare a "smoking tobacco" of pure coca-leaf, without admixture of any kind, which may be smoked in a pipe.

Coca is too well known to the profession to make it necessary for anything more than the briefest description of the plant, its history, or its virtues.

The Erythroxylon Coca grows in moist and woody regions on the eastern slope of the Andes, from two thousand to ten thousand feet above the level of the sea, and is highly valued and cultivated by the natives of Peru, Chili, and Bolivia, who make great use of it as a medicine and as an article of diet. It answers as a substitute for the tea, coffee, tobacco, hashish, opium, etc., of other nations. The natives masticate the dried leaves with finely-powdered chalk, or with a highly alkaline substance prepared from roasted potatoes and the ashes of various plants, and which they call *llipta*. It is said that its use enables them to endure fatigue and exertion for many hours, and even for several days, with but little nourishment of any other kind, and while under its influence they are said to perform prodigies of labor.

Let me compare, therefore, the action of these cigars with that said to be produced by the drug not only by the natives, but by Bartholow, Wood, the United States Dispensatory, the National Dispensatory, and other authorities equally well known, who are investigating the properties of this remarkable drug.

First, all authorities agree that the use of coca, either in the leaf, fluid extract, or wine, is followed by a feeling of contentment and of well-being, the sense of fatigue is removed, drowsiness is experienced for a brief period, but is soon followed by wakefulness and increased mental activity. The celebrated pedestrian Weston, having learned their powers, was detected in the use of coca-leaves during one of his extraordinary feats in London. The question, then, is, does coca, smoked, produce these effects?

I have testimony as to the feeling of contentment and well-being. Dr. M., of Wilmington, Delaware, one of the leading physicians of that State, made some experiments in this direction for me. Being thoroughly acquainted with the effect of the drug, having frequently used it in connection with his extensive practice, and often experienced its effect on himself, what he has to say must be received as of weight. At the time of the experiment which was tried upon himself he was feeling somewhat depressed,—had the blues, in other words,—owing to the absence of his family and the loneliness of his house without them. After dinner he smoked a couple of the cigars, with the effect that the "blues" were expelled and he felt the exhilarating effect of the drug in the same manner as after a dose of the wine. It is his opinion that the effect of the cigars is milder than that of the wine, but he is satisfied that he experienced the peculiar power of the coca by smoking it. He will continue his experiments in other cases.

Mr. S., of the same city, who was suffering from a dyspepsia and its attending depression, smoked the cigars after meals at my suggestion, the result being to dispel the depressed feeling and remove the fulness experienced after eating a meal. Repeated experiments confirmed this. As coca is said to stimulate the gastric nerves and greatly facilitate digestion, the above experience seems to prove that the cigar has a similar effect.

Mr. C., a clerk in a cigar-manufactory, Philadelphia, smoked several of the cigars. He says that the first one was used during the hot weather of summer, when he was nervous and depressed by the heat. The effect was to stimulate him, remove the depression, and steady his nerves, and he felt well afterwards for the rest of the day. Repeated experiment confirms him in the belief as to the correctness of his view that coca-leaf smoked is a stimulant and tonic. He inhaled the smoke.

Dr. K., Philadelphia, has smoked a number of the cigars at my request. He is familiar with the effect of coca, having used it while a student as a stimulant during his researches on the heart at the physiological laboratory of the Jefferson Medical College. He recognizes the stimulating effect of the drug in the cigar.

Mr. M., Philadelphia, a chemist of much reputation, and a very careful observer, finds a stimulating effect from the cigar the same as his experience in the use of coca. He will continue to experiment with it.

Prof. S., for many years a teacher of pharmacy in Philadelphia, a gentleman of excellent powers of observation, says that he experiences the peculiar effect of coca on smoking the cigar.

Chief Engineer N., U.S.N., a member of a

recent Arctic exploring expedition, says that he did not experience any exhilaration from the smoke of the coca-leaf. He will, however, continue his experiments still further, and report to me after doing so.

Personally, I have found the effect of smoking coca-leaves to bear out the statements that the drug produces a general excitation of the circulatory and nervous systems. Smoking and inhaling the smoke of one or two cigars will increase my own pulse-rate some eight or ten beats to the minute. It certainly relieves the sense of fatigue. Smoked at night, in my own case and in the cases of several of my patients, it produces wakefulness similar to strong coffee.

The exaltation produced by it does not seem to be followed by any feeling of languor or depression. I find it a relief after a full meal, like a good tobacco cigar. It seems to impart increased vigor to the muscular system as well as to the intellect, with an indescribable feeling of satisfaction. I have never experienced any intoxicating effect from smoking it. Dr. Bartholow says that coca, as is the case with tea and coffee, acts as an indirect nutrient by checking waste, and hence a less amount of food is found necessary to maintain the bodily functions; and it is probable that some of the constituents of coca are utilized in the economy as food, and that the retardation of tissue-waste is not the sole reason why work may be done by the same person better with than without it; and I have just learned, in a letter from Messrs. Parke, Davis & Co., that "a Mr. Stevers, a citizen of Abilene, Kansas, who is afflicted with hay-fever, and was about to go to the mountains, has concluded to remain at home, having obtained relief from the use of cigarettes of coca. Every morning he uses a cigarette, and finds perfect relief. He uses three per day, and also has used an application of two-per-cent. solution of muriate, but finds that the cigarettes relieve him quicker and the effects last longer."

To sum up, therefore, coca smoked seems to produce the same effect on the system as coca taken internally in the form of fluid extract, wine, or elixir, but not in such a marked degree. Coca itself is known to be stimulant, tonic, and restorative to the system in the treatment of various diseases marked by debility and exhaustion. Nervous debility and exhaustion in all its forms, whether caused by diseases or excesses, are said to be relieved by it. Fatigue disappears, to be followed by a feeling of indescribable calm and satisfaction, increased strength of brain and muscle, and desire for mental and muscular occupation.

Coca has been used with great success in the treatment of the opium habit. It is also an excellent substitute for tobacco. It has been successfully used in dyspepsia, flatulency, colic, gastralgia, enteralgia, hysteria, hypochondria, spinal irritation, idiopathic convulsions, nervous erethism, and in the debility following severe acute affections. As it is a valuable restorative agent, checking tissue-waste, it is a useful remedy in consumption and wasting diseases generally. It is also of value in the nervous forms of sick-headache, *migraine*. It is said to be an aphrodisiac.

Now, my object in publishing this article is to introduce coca-leaf cigars to the notice of the profession. I have furnished what information I have to prove the cigars are capable of producing the action of the drug. In my own mind I have no doubts on the subject, though the effects are milder than those resulting from the employment of the fluid preparations of coca internally. I have also summed up the properties said to be possessed by coca as a therapeutic agent. I have produced evidence, in addition to that furnished by Dr. Lewis, that it is of value in the treatment of hay-fever; and, as it is important that the true value of this form of using coca-leaf should be known, I have had some made, and I will send samples to members of the profession, free of charge, who may desire to test them, and will publish the results, favorable or otherwise, in the medical press. I have no proprietary interest in them, nor have I copyrighted this article concerning them. The idea of coca in this form, and all information concerning it, is free to the use of the profession.

P.O. Box 248, Philadelphia, Pa.

Potassium Bromide in Ovarian Menorrhagia.—Dr. Alfred Meadows, referring to the powerful influence exercised by this agent upon the ovaries, stated that no drug equalled it in controlling ovarian menorrhagia: it not only limits the flow, but also exercises a distinct and controlling influence upon ovulation itself, decreasing its frequency.—*Proc. British Gynæcol. Society.*

REPORT ON THE PROGRESS OF DERMATOLOGY.

BY ARTHUR VAN HARLINGEN, M.D.

DERMATITIS HERPETIFORMIS.

UNDER this title Duhring describes a skin-disease which includes the affections known as herpes gestationis (Bulkley), herpes impetiginiformis and impetigo herpetiformis (Hebra), and also as herpes pruriginosus, pemphigus, eczema, etc.

The affection is protean in its objective symptoms, taking on various forms in one case or in another, and varying in the characteristic lesions at different times even in the same case.

In severe cases prodromata are usually present for several days preceding the cutaneous outbreak, consisting of malaise, constipation, febrile disturbance, chilliness, heat, or alternate hot and cold sensations. Itching is also generally present for several days before any sign of effervescence. Even in mild cases slight systemic disorder may precede or exist with the outbreak. This latter may be gradual or sudden in its advent and development. Not infrequently it is sudden, one or another manifestation breaking out over the greater part of the general surface diffusely or in patches in the course of a few days, accompanied by severe itching or burning.

A single variety, as, for example, the erythematous or the vesicular, may appear, or several forms of lesion may exist simultaneously, constituting what may very properly be designated the multiform variety. The tendency is in almost every instance observed by Duhring to multiformity. There is, moreover, in almost every case a distinct disposition for one variety sooner or later to pass into some other variety: thus, for the vesicular or pustular to become bullous, or *vice versâ*. This change of type may take place during the course of an attack or on the occasion of a relapse; or, as is often the case, it may not show itself until months or years afterwards. Not only multiformity of lesion but irregularity in the course of development is, it may be repeated, the rule. Itching, burning, or pricking sensations almost always exist. When the eruption is profuse they are intense, and cause the greatest suffering. They become more violent before and with each outbreak, abating in a measure only with the laceration or rupture of the lesions. The disease is rare, but of more frequent occurrence than formerly supposed. Duhring has met with fifteen cases. All were adults, including both sexes in about equal proportion. The natural history of the disease is interesting. The process is in almost all instances chronic, and is characterized by more or less distinctly marked exacerbations or relapses, occurring at intervals of weeks or months. The disposition to appear in successive crops, sometimes slight, at other times severe, is peculiar. Relapses are the rule, the disease in most cases extending over years, pursuing an obstinate, emphatically chronic course. All regions are liable to invasion, including both flexor and extensor surfaces, the face and scalp, elbows and knees, and palms and soles. Excoriations and pigmentation, diffuse and in localized areas, are in old cases always at hand in a marked degree. The pigmentation is usually of a mottled dirty-yellowish or brownish hue, and is persistent.

The remainder of Duhring's paper is devoted to a more detailed description of the various types of the disease,—the erythematous, the vesicular, the bullous, the pustular, the papular, and the multiform.

Since the publication of this first paper Duhring has thrown off a perfect fusillade of articles describing cases illustrating the various types of the affection and its relations to other diseases of a similar nature.*

Under the title *Hydroa, Impetigo Herpetiformis, Dermatitis Herpetiformis*, Robinson (*Jour. of Cutaneous and Venereal Diseases*, January, 1885) discusses the propriety of Duhring's nomenclature, and gives a case occurring in his own practice,

* 1. Notes of a case of dermatitis herpetiformis, extending over eleven years, illustrating the several varieties of the disease (Philadelphia Med. Times, July 12, 1884). 2. Case of dermatitis herpetiformis (multiformis), aggravated by pregnancy and irregular menstruation (Philadelphia Med. News, July 19, 1884). 3. A case of dermatitis herpetiformis (bullosa) (New York Med. Jour., July 19, 1884). 4. Case of dermatitis herpetiformis, illustrating in particular the pustular variety (impetigo herpetiformis of Hebra) (Jour. Cutaneous and Venereal Diseases, vol. ii. No. 8, August, 1884). 5. Dermatitis herpetiformis: its relation to so-called impetigo herpetiformis (Am. Jour. Med. Sci., October, 1884). 6. Notes of a case of dermatitis herpetiformis during thirteen years (New York Med. Jour., Nov. 15, 1884). 7. Preliminary note on the relation of dermatitis herpetiformis to herpes gestationis and other similar forms of disease (Phila. Med. News, Nov. 22, 1884). 8. Case of dermatitis herpetiformis caused by nervous shock (Am. Jour. Med. Sci., Jan. 1885). 9. A case of dermatitis herpetiformis, with peculiar gelatinous lesions (Phila. Med. News, March 7, 1885). 10. Relation of herpes gestationis and certain other forms of disease to dermatitis herpetiformis (paper read at the ninth annual meeting of the American Dermatological Association, Aug. 27, 1885, not yet published).

illustrated by a chromo-lithograph. Robinson says that it has not by any means been shown that the term hydroa, as first proposed by Bazin for certain eruptions resembling on the one hand herpes and on the other pemphigus, is not, in its proper acceptance, sufficiently broad to include all those papular, vesicular, pustular, and bullous forms of eruption which have been described under the terms impetigo herpetiformis, dermatitis herpetiformis, pemphigus hystericus, and herpes gestationis. Dr. Robinson inclines to the views of the late Dr. Tilbury Fox, as given in a posthumous article on hydroa (*Archives of Dermatology*, 1880, p. 21), in which that writer distinguishes three varieties of the affection,—Hydroa simplex, H. herpetiforme, H. bulleux s. pruriginosum. These, however, do not seem to give room for cases in which the pustular element predominates. All or almost all of Duhring's cases were characterized by intense itching, and this whether they showed such symptoms as would include them under the subdivisions H. simplex, H. herpetiformis, or H. bulleux s. pruriginosum.

Brocq (*Annales de Dermatologie et de Syphilis*, i. vii., 1885, p. 235) considers the question in this country to be in considerable confusion. He quotes a case reported by Boardman (*Boston Med. and Surg. Jour.*, October 2, 1884, p. 821) of a woman of 26, in whom, six days after labor (which had been followed by hemorrhage, fetid lochia, and fever), a vesico-papular and pustular eruption, with more generalized erythema, appeared on the hips, thighs, lower part of the abdomen, and breasts. Later bullæ appeared, which broke, and sometimes displayed excoriations. Gradually the whole body, head, and limbs were covered, and the patient got very low, but rapid recovery took place at the end of three weeks.

Comparing this case with those of Duhring and Robinson, Brocq declares that he cannot see how they can be brought into a single category. Robinson's case seems to him one of ordinary erythema multiforme bullosum. Boardman's case seems one of dermatitis, a bullar and erythematous eruption caused by septicæmia or the effect of medicine, and therefore similar to Hebra's impetigo herpetiformis. Besnier and Doyon have pointed out that these eruptions (of impetigo herpetiformis) are septicæmic in character, or else reflex dermatitides of a trophic character. In the present state of our knowledge it might perhaps be well to class them in a new group of infectious erythema multiforme. They have the extreme gravity, the rapid development, the multiform general and local symptoms, and, finally, the cutaneous manifestations.

On the other hand, Brocq points out that the cases reported by Duhring are of slow evolution, chronic, characterized by successive onsets persisting for years without marked modification, appearing without perceptible cause in persons otherwise healthy, and finally having nothing more in common with Hebra and Kaposi's cases than certain external appearances. The impetigo herpetiformis of Hebra and Kaposi has always been observed in pregnant women; the dermatitis herpetiformis of Duhring, so far from being more marked, diminishes during gestation. Brocq, in conclusion, expresses doubt as to the existence of dermatitis herpetiformis as an entity.

In the opinion of the writer of these reports, the whole subject needs more careful observation and multiplied data before a positive settlement can be arrived at. The international discussion of the question should be continued, and all in possession of facts should bring them forward for comparison and deduction.

SKIN-DISEASES OF THE LOWER EXTREMITIES RESULTING FROM ULCERATION.

Unna (*Med. Press*, April 15, 1885, from *Deutsch. Med. Zeitung*) includes under this head simple pruritus, various forms of eczema, œdema, and pachydermy, superficial phlebectasiæ, hemorrhage, and lastly ulcer of the leg. In all these blood-stasis is the primary symptom and the principal cause of the succeeding phenomena. The indications for treatment are: 1, To remedy the symptoms of impeded circulation; 2, To ascertain and apply the local treatment demanded by the existing condition of things. Under the first head Unna rejects the treatment by horizontal posture with elevation of the limb, because so soon as the foot is placed upon the ground again, stasis once more comes into play. Bandages properly applied are of high value. The ordinary bandages are only useful in mild cases. Martin's rubber bandage is very valuable, but the weak point of the material lies in its impermea-

bility. It answers well when but little moisture is given off; but in those cases where there is abundant transudation, where eczema or discharging ulcers are present, the india-rubber bandage is not only of no use, but almost invariably sets up a frightful eczema which at once demands a change of treatment.

Instead of Martin's bandage, Unna now uses the following procedure. Take, for instance, a neglected case of varicose veins partly covered by moist and partly by dry eczema, on the under anterior third of which is a dirty necrotic undermined mass surrounded by a soft loose border. After a thorough cleansing with soap and water, he paints the whole over as far as the ulcer with warmed zinc paste (℞ zinc. oxid., gelatin. pur., āā 10; glycerin., aquæ, āā 40. To be painted on warm). Upon the ulcer itself iodoform is dusted, and a layer of lint placed which may also be saturated with iodoform or sublimate. He then takes an ordinary roller, such as is used in bandaging with plaster of Paris, and rolls this up *from each end so that it has at last two heads of equal size.* Thus rolled up it is dipped into water, squeezed out, and then applied in the following manner to the leg covered with paste and not yet quite dry. The patient sits with his leg raised opposite the surgeon, who grasps with his two hands the two heads of this bandage so that the connecting piece between the two heads comes into contact with the limb behind and opposite the ulcer. The two heads are then brought forward and covered over the ulcer, already covered with the lint or gauze. The heads of the bandage are then made to change hands, and firm tension is made, so that the leg at the level of the ulcer is plainly diminished in circumference. The two heads are then carried backwards and crossed either above or below, but under all circumstances opposite to the ulcer. The heads again change hands and are carried forward, crossed in another place and tightened, and so on until the whole of the affected part is covered by the bandage. A second moistened prepared bandage is then immediately placed over the first, for the purpose of filling up the thin places of the first and strengthening it. The second may be put on in the same way as the first, but it is usually done in the ordinary way. The bandage soon dries, and it is allowed to remain on from two to four days, according to the amount of secretion going on under it. The pain on walking and putting the foot down soon becomes less, so that the patient's occupation is not interrupted. The more firmly the bandage is laid on, the better is the result seen on taking it off. It is therefore laid on as tightly as the patient can bear at the time. When the quantity of secretion diminishes, this "permanent bandage" may remain on eight days.

Every time the bandage is changed—it should be taken off while the leg is in a pan of warm water—an agreeable improvement in the ulcer is observed; at first cleansing of the bottom, then flattening down of the edges, then covering with healthy granulations and progressive diminution in size by advance of the border of epithelium. In the mean time the zinc paste, assisted by the restful pressure of the hardened pasty bandage, acts beneficially on the eczema, and astringently on the whole leg. The essentials are the peculiar manner of applying the bandage from both ends, and the preliminary application of the paste. This method of application leaves absolute permeability. It is important to cover the healthy skin with the paste, so as to get a firm basis of attachment for the bandage.

In addition, Unna gives concentrated fluid extract of hamamelis (P. D. & Co.) ♏xx thrice daily, and also uses other internal and external remedies, the names and qualities of which are as yet unknown on this side the Atlantic.

BILATERAL HERPES ZOSTER.

Dr. J. Magee Finny (*British Med. Jour.*, January, 1885) gives a case of this rare distribution of herpes occurring in a woman of 40. On the left side the patches of disease followed the distribution of the descending sensory nerves of the cervical plexus, with the exception of the supra-sternal division, and were limited to the upper part of the deltoid and pectoral muscles. A large patch occupied the posterior superior triangle of the neck, and one or two smaller ones were over the sterno-mastoid. The eruption on this side would correspond to Von Bärensprung's variety, *Z. cervico-subclavicularis.* On the right side the ascending branches of the second and third cervical nerves were those engaged (*nervus occipito-collaris*), and no patches were visible below the level of the thyroid body, though a large

cluster occupied the anterior triangle of the neck as far forward as that body, corresponding to the junction and cutaneous distribution of the superficialis colli and infra-maxillary branch of the facial nerve. Another patch was on the lower jaw, and a third was situated near the mastoid, over the origin of the plexus. The whole of the external ear was red and swollen, and thickly studded with very minute vesicles, the swelling extending a short way into the meatus auditorius. The scalp on the same side, and strictly limited to that side as far forward as the mid-parietal region, was the seat of a number of scattered pimples and vesicles.

The unusual features in this case were the occurrence of herpes of the scalp and the coexistence of the disease on different sides of the neck. Herpes zoster, as Dr. Finny remarks, has its predilections for certain parts. The favorite sites are in the course of the intercostal nerves and the lumbo-sacral plexus; next in order come the brachial plexus, the descending branches of the cervical, and the frontal or facial branches of the fifth nerve. Among the most rare are the occipital nerve and the nerves of the fore-arms and legs. The chief interest in Dr. Finny's case, however, is that the herpes attacked both sides at the same time. In the comparatively few cases on record of bilateral herpes zoster, the eruption as in the above case is not on exactly the same level, but the cutaneous nerves attacked on one side are on a higher or a lower level than those on the other side.

THE THERAPEUTICS OF SKIN-DISEASES.

LUPUS ERYTHEMATOSUS.—Dr. Reynolds (*Florida Med. Monthly*) uses hot water and sapo viridis in the evening, followed by the application of sulphur ointment (one drachm to the ounce) over-night. For several days subsequently he applies a powder of boracic acid morning and evening. The smaller patches he removes by multiple puncture and the electric needle.

PRURITUS ANI. — Atkinson (*Virginia Medical Monthly*) considers among the causes of this affection internal hemorrhoids, constipation, profuse diarrhœa, ascarides, chafing the anus and neighborhood, and too warm coverings at night. Tobacco, tea and coffee, and all articles of food which may give rise to dyspepsia, increase the evil. Scratching sometimes causes the formation of rhagades, which aggravates matters. By way of treatment, Atkinson recommends that when the patient wakes with itching about the anus, this being usually worse at night, he should rise and sit upon a cold surface or in a cold sitz-bath. Constipation must be overcome, the diet regulated, and smoking must be enjoyed in moderation or entirely stopped. Washing, scratching, and rubbing the parts must be entirely avoided. Any growths of redundant skin or mucous membrane must be removed. As a laxative, Atkinson prefers a saline water in preference to such drugs as podophyllin, which increase the trouble. Patients should accustom themselves to go to stool just before retiring. In some cases bromide of potassium may be taken when necessary in order to produce sleep; but healthy fatigue from bodily exercise is the best soporific.

Locally, Atkinson finds suppositories containing a grain and a half of extract of belladonna or four grains of the watery extract of opium useful. Chloral is too irritating. One of the best applications is a saturated solution of boracic acid. Yellow wash and mercurial ointment are sometimes of use, but should not be rubbed in. Tar ointments are likewise of use, but are disagreeable to most people. The patient must avoid sitting upon cushioned seats.

TREATMENT OF ERYSIPELAS. — Lewis (*Jour. of Cutaneous and Venereal Diseases*, September, 1885) recommends Barwell's treatment: a preliminary purge and the local application of the white lead of the paint-shops mixed with a dryer. The paint should be thicker than for ordinary use. It peels off readily when desquamation begins, even from the head. In Lewis's experience the most astonishingly rapid cures have been obtained.

BRUCINE IN PRURITUS AND OTHER SKIN-DISEASES.—Dr. Thomas J. Mays (*Therapeutic Gazette*, June, 1885), in an article on the physiological action of cocaine and of its analogue brucine, says of the latter that its action is most decided and definite on the cutaneous surface. A five-per-cent. solution relieves the pain in aphthæ of the mouth, and the same solution applied with a small sponge or camel's-hair pencil to the amount of ten or fifteen drops over a small area or more over larger surfaces allays the irritation of pruritus and of der-

matitis. If weaker solutions are inefficient, stronger ones can be used. It shows its effects in five to ten minutes. In making a solution of the alkaloid, five drops of hydrochloric or sulphuric acid must be added to each gramme. It is preferable to use either the nitrate or the sulphate of the alkaloid.

TREATMENT OF BOILS.—Gingeot (*Bul. Gén. de Thérap.*, 1885) recommends painting the lesions with repeated layers of tincture of iodine until the skin is dark brown. A single application will sometimes abort the lesion, but usually relapses take place and numerous applications must be made. Internally, Gingeot thinks nothing so useful as the sulphide of calcium of Ringer.

THE INFLUENCE OF MALARIAL POISONING UPON PREGNANT WOMEN.

BY W. THORNTON PARKER, M.D. (MUNICH),

Newport, Rhode Island.

IN the *Medical Record* for August 29, 1885, I noticed the following reference to a subject in which I feel considerable interest:

"Mendel and Ritter have recorded the comparative immunity of pregnancy from malarial attacks, for which the latter accounts by the smaller degree of exposure to malarial influences during pregnancy. On the other hand, Göth, of Klausenburg, found (*Zeitsch. für Geb. und Gyn.*, Band vi. S. 17, 1881) that, during a severe epidemic of a malarial nature, 46 out of 881 pregnant women were attacked; and, of these 46, in 19 the labor was premature, and in some the children were still-born; and, even when they were alive, the size and weight were abnormally low.

"Bompani also (*Centralbl. für Gyn.*, 1884) is of opinion that malaria causes more premature labors than syphilis."

The observations of Mendel and Ritter may be correct as regards malarial influences in Germany, but the opinion of Bompani coincides more nearly with my own experience; while, to my mind, the statement of Göth, which contradicts the theory of Mendel and Ritter, does not sufficiently emphasize the danger from malarial poisoning.

It has been stated that in our Western States a very general belief exists that during pregnancy the mother is protected from malarial poisoning. Such a belief is, like many others that are to be found among the ignorant and superstitious, opposed to scientific truth.

Pregnancy is a process which proceeds most satisfactorily when taking place in a healthy woman impregnated by a healthy husband, and neither mother nor child can thrive well if the surroundings are unhealthy and unfavorable, or if the mind is in constant anxiety and unrest. The care and consideration shown by the ancient Romans for pregnant women are well known, and the justice and wisdom they exhibited then are models for all time. The influence malarial poisoning exercises upon the mother and unborn child, like every other poisonous and depressing influence, is bad. In my experience in Western sections where malarial fevers prevailed, I found miscarriages frequent, and the proportion greatest in those who suffered most from general malarial poisoning. If the child escape early destruction, it is generally apt to be puny, weak, and miserable, and especially liable to malarial poisonous inception later in life.

The practice of consumptive women marrying in the hope that by becoming pregnant the dreadful disease will be arrested in its course was founded upon just such erroneous ideas, and marriages of women known to be victims of chronic malarial diseases are also to be deprecated. The woman suffering from malarial poisoning should be urged by her physician to submit herself to a thorough course of treatment to eradicate the disease before marriage, and, if pregnant, to arrest the progress of the taint by every possible means.

The future strength of constitution in the child depends upon a healthy blood-supply from the mother.

It is, of course, generally admitted that the exhibition of quinine in this condition may in fact injure the condition of the child in the uterus; but that its action may influence the muscular contraction of the womb sufficiently to produce abortion is not yet proved. Abortion and miscarriage follow not on account of the medicine administered, but in spite of it.

We have only to consider the natural healthy state of a pregnant woman to recognize at once that any deviation from the standard, any reception of morbid, depressing influences, physical as well as mental, must be injurious. As a matter of

fact, the inception of the malarial poison may be dangerous, if not fatal, to the child, and oftentimes for the mother as well.

The danger is a common one. We can readily prove, upon investigation, that the children and the grandchildren of our healthy Western pioneers who settled in malarious regions are noticeably inferior in constitutional strength to their progenitors. Of course, exceptions are numerous, and the conditions of mild climate affording a large amount of out-of-door life are, in a multitude of cases, a valuable offset to the chances for the malaria everywhere so prevalent.

The numbers of premature labors and of still-born and puny, sickly children in malarial regions, together with the general poor condition of the puerperal woman, would be sufficient proof to most observers of the effect of this poison upon pregnant women. Labors are more tedious and in every respect more dangerous, and the liability to uterine inertia and to post-partum hemorrhage is greater, among women who have suffered from chills and fever and who reside constantly in "malarious districts."

The puerperal woman is liable to malarial poisoning: this fact is oftentimes a strong argument for the use of artificial food for the infant. The new discoveries of late in the feeding and management of infants can be applied with advantage to the infant of a mother suffering from malarial poisoning and whose milk is poisonous in consequence.

For the protection of the pregnant woman I find a certain course of treatment always desirable, and especially valuable in the treatment of cases under consideration. In the first place, in addition to quinine, which is indispensable, I pay attention to the bowels, carefully opposing any tendency to constipation. The effervescent tartrate of soda is the best mild aperient that I know of. It is especially grateful to the stomach. Its action is so gentle that there is absolutely no risk in administering it. If necessary, I increase the dose, giving four or even five teaspoonfuls in cold water ten or fifteen minutes before breakfast frequently during the week. The daily sponge-bath is almost always to be recommended for all classes of patients, rich and poor, strong and delicate. Exercise daily in the open air, and good nutritious food and pleasant surroundings, with cheerful society, all these desirable things are aimed at.

For the malarial infection I use the German preparation of hydrochlorate of quinine* as being best suited for such cases and least liable to injure either the mother or child. If iron is indicated, I know of no better preparation than Wyeth's dialyzed iron.

For the general cleanliness of the vagina, boro-glyceride vaginal suppositories, made by Metcalf & Co., of Boston, I find useful, and I always recommend the use of the bidet with tepid water almost daily, but with great care.† I regard the attention to the vagina of great importance. Keeping the rectum and vagina clear and clean will exert a powerful influence for good in the general management of cases of pregnancy.

The influence of malarial poisoning upon pregnant women is, we have seen, a common evil, and should receive decided attention. With regard to the importance of considering its action as a cause of ordinary uterine disorders in the non-pregnant, our medical journals furnish many valuable cases for illustration.‡ Barnes§ refers to this influence, asserting that in menstruating women the secretion is diminished and the color is *pale*. The depressing, enervating influences of the poison must act readily upon the delicate sexual organs of non-pregnant women. The law is practically the same for the non-pregnant and the pregnant: anything which lessens the vital forces, weakening and deranging the system, must of course leave its mark on organs so sensitive and so easily disturbed from normal action. The poverty of the blood in such cases would be sufficient for much disorder. Any argument to prove that the pregnant or non-pregnant woman can endure exposure to malarial poisoning without fear of injurious consequences must be erroneous.

NEWPORT, RHODE ISLAND, September, 1885.

W. K. BOWLING, M.D., ex-President of the American Medical Association, died August 6, 1885, at his home, near Nashville, Tennessee, aged seventy-seven years.

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* *Vide* Philadelphia Medical News, April 28, 1883.

† In using the bidet, I insist upon the syringes made by Tiemann & Co., as being the safest. *Vide* New York Medical Record, July 5, 1879.

‡ *Vide* Gynæcological Journal, vol. ii. 1870, p. 164 *et seq.* ("Metrorrhagia as occasioned by Malaria"); ibid., vol. iv., 1871, p. 7 ("Malarial Leucorrhœa"); ibid., vol. v., 1871, p. 39 ("Uterine Neuralgia as occasioned by Malaria").

§ "Diseases of Women," p. 243.

NOTES OF HOSPITAL PRACTICE.

MEDICO-CHIRURGICAL COLLEGE.

CLINIC OF WILLIAM F. WAUGH, M.D.,
Professor of Practice and Clinical Medicine.

CASES OF ABDOMINAL PULSATION.

THE first case to which I ask your attention is that of A. B., a native of Ireland, 22 years old, who works in a foundry. He has a pulsation in his chest, which has attracted his attention for more than a year. He complains also of dyspnœa and a troublesome cough; he expectorates a little tough, adhesive mucus, and sometimes blood. He says he has dyspepsia very badly; but I find he means gastric catarrh, an affection frequently confounded with dyspepsia. You see that he is pale and emaciated; his lips have a slaty-blue tint; his hands are cold, the palms wet and clammy. Notice how the perspiration gathers upon his forehead and rolls down in great drops, though the room is by no means warm. Altogether, his whole appearance is that of a man who is seriously ill.

When I press my finger against the back of his hand, see how slowly the white mark disappears before the returning blood. The capillary circulation is evidently sluggish. His pulse is feeble, and if you place all four fingers of one hand upon the artery, you will find that it feels as though the vessel were but half filled with blood. We now request our patient to strip to the waist, and at once our attention is arrested by an unusual sight.

The apex-beat of the heart is seen at the point of the ensiform cartilage in the epigastrium. On the right side there is an abnormal prominence below the ribs. The blue veins, engorged with blood, stand out with unusual distinctness on the surface. By placing the hand over the epigastrium, the pulsation is found to be strong and forcible. On percussion in the cardiac region, you note that the dulness we expect to find is absent, while lower down and to the right, under the sternum, the dulness is marked. The liver is considerably enlarged. Auscultation reveals the sonorous râles of bronchial catarrh.

The heart-sounds are normal, except that the first sound is prolonged into a murmur, heard most plainly at the apex. This, as you know, is indicative of disease of the mitral valve, allowing regurgitation.

Let us see if we cannot with this key unlock the mystery of the case, and with it account for all the symptoms we have quoted.

As part of the blood in the left ventricle flows back into the auricle, the aorta does not receive a full supply, and the arterial system is imperfectly filled. The blood coming from the lungs through the pulmonary veins finds the left auricle already partly filled with blood, which has regurgitated through the imperfect valve. Hence the pulmonary veins are unable to empty themselves, and the lungs are engorged with the blood which cannot be carried away. This causes a tendency to pulmonary congestions and catarrhs, and sometimes the capillaries give way, and we have hæmoptysis. This also causes the dyspnœa, which becomes very great whenever an acute catarrhal attack supervenes. But, the lungs being distended with blood, there is also obstruction to the ingress of fresh supplies from the right ventricle through the pulmonary artery. Here is where nature makes an attempt to overcome the obstruction by a hypertrophy, increasing the power of the right ventricle.

As the pressure of the blood dammed up in the lungs increases, the contractions of the right ventricle become more forcible in the effort to propel the blood through the pulmonary capillaries and thus keep up the circulation. As long as this process is kept up, the patient may enjoy a reasonable degree of comfort; so much so that our patient has passed through this stage without suspecting that he was ill enough to require the aid of a physician. But compensatory hypertrophy cannot go on indefinitely, and the limit has been reached in this case. The original disease still increasing, the right ventricle has at last yielded to the pressure, and its walls have dilated. The right auricle remains incompletely emptied; the venæ cavæ are unable to discharge their constantly incoming supplies, and the whole venous circulation is gorged with the blood which can find no outlet. The hepatic veins are unable to remove the blood from the liver, and the distention of its capillaries has notably increased its bulk. The congestion extends back to

the roots of the portal vein; enlargement of the spleen appears; engorgement of the gastro-intestinal veins predisposes to catarrh of these tracts, while over-filled veins, cyanosis, and transudation of serum appear over the whole body. One effect we would expect to find is a diminution of the urine, owing to the feeble pressure in the renal artery, and on inquiry we find this to be the case.

The prognosis here is bad enough. Death will occur from intercurrent disease, probably of the lungs, or else from exhaustion from increasing obstruction of the circulation, with general dropsy. We may for a time sustain the failing heart by giving digitalis, and when that loses its effect we may prolong life a few weeks by the aid of caffeine. We endeavor to keep up the quality of his blood by a carefully-regulated diet; we limit its bulk by eschewing liquids; and we endeavor to cure the pulmonary accidents as promptly as possible. Do not feel discouraged that you can do no more. Man is but mortal, and in our most perfect cures we do but prolong life; while in no cases can the physician better show his skill than in the treatment of incurable diseases.

My next case is also one where the symptom which causes most complaint is abnormal pulsation.

This lady is 20 years of age; has had indigestion with pyrosis for years, and has also suffered from menstrual irregularity. She complains of severe pain in the epigastrium, occurring once or oftener every day; of distress after eating, eructations of gas, and the other symptoms of catarrh of the stomach. Her bowels are constipated, her face is sallow, complexion muddy, and she is thin and anæmic. But her greatest trouble consists in a pulsation —which you can plainly see as she lies on her back—situated about two inches above and to the right of the umbilicus. On palpation, we feel what at first appears to be a tumor; but we find it is the aorta passing over the bodies of the vertebræ, which, in a person as thin as this girl, may cause the pulsation. This might be mistaken for an aneurism; but we exclude this by the sex and age, the absence of *bruit*, of disorder of the circulation below the point in question, and of pressure-symptoms.

A tumor of the stomach might also cause visible pulsation if it lay directly over the artery; but, as such tumors are invariably cancers, we may exclude them by her age.

Now, gentlemen, what shall we prescribe for this case? Iron, for her anæmia? No, for two reasons. First, her gastric catarrh will not permit her to take any form of chalybeate medication. I found this out years ago in a similar case, in the days when I thought iron was called for in every case of debility as certainly as mercury is called for in syphilis. You cannot give this girl in her present condition either iron, arsenic, astringent metals, vegetable bitters, mineral acids, cod-liver oil, alcohol, or malt liquors.

The second reason is this: Both her parents died with pulmonary consumption, the father very soon after her birth. She inherits in a striking degree the peculiarity of constitution which predisposes to tubercular affections. In her childhood she was subject to epistaxis, and after menstruation was established she had once at least pulmonary hemorrhage. She has always been fragile in physique and precocious in intellect. During her mother's last illness, she showed the most noble devotion and judgment far beyond her years, rising from a sick-bed to nurse her.

Now, you will find, gentlemen, that in such a case as this, if you succeed in removing the anæmia and in restoring to her cheeks the rosy hue of health, the tubercular tendency, which has as yet lain dormant, will be roused into activity, and you will soon have an acute manifestation of the disease in some form. With the decadence of the humoral theory we have learned that the difficulty does not consist in a lack of iron in the blood, but in a defective structure of the solid tissues. What element, then, gives strength and firmness to every cell of which our bodies are constructed? Lime.

In the whole group of diathetic diseases we find, of late years, one great authority after another recommending the salts of lime. From this fact alone we might, with a good deal of plausibility, reason back to the ground that in this group the essential disease-factor consists in a deficiency of lime in the solid tissues. Is it, then, the panacea for the various forms of consumption, the long-looked-for remedy which will enable us to rescue the great army which every year, month, or week

marches down to the consumptive's grave? By no means. It has no power whatever over the development of the tubercle-bacillus; it is no germicide. In the treatment of tubercular consumption its uses are unusually clear-cut, limited, and defined. It is *the* remedy *par excellence* for colliquative diarrhœa, bronchorrhœa, and night-sweats. Wherever the blood-serum is escaping through cells too weak to retain it, the salts of lime are indicated. For the fever, the cough, and the dyspnœa it is useless.

But its true *rôle* is in the pre-tubercular state,—the condition which Formad has so beautifully shown as constituting the inheritance of children of consumptives, and of which we have a typical example before us to-day.

Here the indication is for lime, and not for iron. Remember, you give it not for the relief of a symptom, but as a tissue-food; also, that as a tonic it is the slowest of remedies: you may give it for months before its effects are manifest. Administer it in minute doses, but persistently,—for years, if need be.

The form of the salt is of some importance. I have learned to prefer the lacto-phosphate, believing it to be more readily soluble and assimilable than the hypophosphites. It is sometimes difficult to obtain it pure. Not long since I returned some to one of our leading druggists because it did not readily dissolve in water. He stoutly maintained its purity, and produced the original package bearing the name of Merck, of Darmstadt. It was insoluble, however, and a pure sample procured from Powers & Weightman quickly showed the difference.

We will direct this young lady to purchase an ounce of the salt, and take five grains daily, in divided doses. For the gastric catarrh we will order her five drops of wine of ipecacuanha and ten grains of magnesia, to be taken in a cup of very hot water before each meal. She must avoid food which experience has taught her will disagree, without limiting her diet unnecessarily. She must carefully guard against taking cold; must take daily exercise; and may go to the mountains in summer, but not to the seashore.

THE vapor of tincture of benzoin affords relief after inhalation, in acute coryza.

TRANSLATIONS.

TREATMENT OF ACUTE FIBRINOUS PNEUMONIA BY PARENCHYMATOUS INJECTIONS.—In a recent communication to the Académie des Sciences (*La France Médicale*, No. 98), Prof. Lépine speaks in terms of commendation of a mode of treatment which he has practised for some time for acute pneumonia, and which has yielded brilliant results. He says, "If, in a case of pneumonia, on the third or fourth day, an injection be made into the hepatized part, by means of a capillary needle, of several cubic centimetres of an aqueous solution (1 to 4000) of mercuric bichloride, in three or four places several centimetres distant from each other, preferably at the periphery of the lesion, in the attempt to circumscribe it (that is to say, twenty to twenty-five cubic centimetres, containing a quantity of sublimate absolutely inoffensive to the patient) the following results are noticed:

"1. At the spot of the injections an immediate diminution of the crepitant râles and of the souffle, which are *partly* replaced by larger râles.

"2. Some hours later, a transitory exacerbation of the central temperature.

"3. On the next day, a great improvement in the general condition, and notably a precocious defervescence.

"4. Finally, by resolution, which (judging by the persistence of the souffle, especially in the parts which have not received the injection) is only completed at the end of several days,—that is to say, at the time that it would have occurred if the pneumonia had been allowed to pursue its natural course or treated by the ordinary means."

These are the results which Prof. Lépine with his assistants and clinical students has seen demonstrated in several cases, and which appeared to prove the utility of this treatment directed against the pneumonic process; the more so since the patients subjected to it were not suffering with congestive pneumonia, but with solid hepatization, as shown by the resistance offered to the needle by the lung. As to the *relative* innocuousness of intra-pulmonary parenchymatous injections of corrosive sublimate in red hepatization (he had not practised it in *gray* hepatization), provided that they are made at a place remote from the great vessels of the root, and that the needle does not penetrate

deeper than 0.03 m. to 0.04 m. into the lung, it is demonstrated by the fact that not a single patient has been lost, and he has not had any accident. The slight pain caused by the needle may be prevented by the previous injection of morphine.

Experiments upon dogs with a solution a little stronger showed that a certain amount of irritation was produced in a healthy (dog's) lung by the injection. Possibly a substance may be found less irritating to the lung than the bichloride, and still capable of suspending or modifying the pneumonic process. At all events, the method of treatment by intra-parenchymatous injections, which has not hitherto been applied to the treatment of pneumonia, appeared to the reporter to be susceptible of being employed in certain cases, though always with prudence, and, of course, without interfering with the treatment of the general condition and the multiple indications of the malady.

TREATMENT OF DIABETES MELLITUS.—Dr. Dornblüth, of Rostock (*Deutsches Archiv für Klinische Med.*), gives the results of carefully-conducted experiments upon four cases of diabetes mellitus.

The diet was strictly limited to meat, eggs, soup, and coffee without milk. The only drink allowed was seltzer, with a little red wine. Occasionally some other food was given, but no leguminous vegetables. Moderate exercise was enjoined. The remedies tested were salicylate of soda, iodoform, carbolic acid, and salicin.

Iodoform was not found to influence the excretion of sugar in any way. The others were each effectual in reducing the amount of sugar, and in compensating for the ill effects of a return to amylaceous food up to a certain point, and also in either improving the general health or checking its progressive decline. None of the cases, however, were cured, all being far advanced when coming under observation.

Carbolic acid was condemned for its bad effects on the system in the large doses required to affect the excretion of sugar. Salicylic acid causes headache, aural symptoms, and is badly borne by the stomach.

Salicin was equally—sometimes even more—efficient as a remedy, and had no injurious or troublesome effects. The largest doses found necessary (eight grammes per dose, eighteen grammes per day) were taken without any detriment.

Serious objections may be urged against the purely dietetic treatment of diabetes. It is not long tolerated by the patient; exposes him to the grave danger of acetonæmia; is expensive, and difficult to enforce on the patient, who is sure to be discontented; and, finally, is at best but a palliative, not aiming at a curative result. Salicin should be given in three- to six-gramme doses, half an hour before each meal. When no more sugar can be detected in the urine, we may allow one meal of amylaceous food daily, increasing the dose of salicin.

GLYCERIN TREATMENT OF TRICHINOSIS.—Dr. Fiedler (*Deutsches Archiv für Klin. Med.*) repeats his former recommendation of glycerin, which, brought in contact with trichina, by the absorption of water from their tissues causes them to shrivel up and die. Experiments made on rabbits were unsatisfactory because, as Fiedler supposes, the glycerin absorbed so much water from the stomach that it was too weak to have any effect when it reached the trichina in the small intestine. He recommends, on the strength of experiments by Unna, of Hamburg, that the remedy be given in elastic capsules of keratin, which resist the action of the acid gastric juice and are soluble only in the intestinal fluids. The dose advised is a tablespoonful of *pure* glycerin, repeated every hour. The treatment is to be prefaced by a brisk purge, and supplemented by the administration of glycerin by the rectum (better by the colon), and by the ingestion of alcohol in undiluted form, which has also the power of absorbing water.

While the value of this method is yet to be shown in actual practice, the fact has been proved that glycerin can be given in the doses recommended without any effect more serious than a sense of thirst and burning in the throat. The possible occurrence of hæmoglobinuria may be disregarded in view of the grave danger to which trichina cases are subject, while the acknowledged inefficiency of all other methods of treatment offers another reason for giving glycerin a thorough trial.

THE USE OF COCAINE PRIOR TO INTRODUCING THE STOMACH-TUBE.—Dr. Lafosse writes to the *Bulletin Générale de Thérapeutique* that in six cases he had found the introduction of the tube facilitated, and dyspnœa prevented, by the preliminary application of cocaine (two-per-cent. solution) to the pharynx.

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EDITORIAL.

THE OPERATIVE TREATMENT OF INTESTINAL OBSTRUCTION.

IN the treatment of acute intestinal obstruction, laparotomy is no longer regarded as an operation which may possibly be required when the patient is beyond other treatment, but the limits within which it must be performed, as early as possible, are speedily being defined. Several papers upon the therapeutics of intestinal obstruction were read before the British Medical Association at its recent meeting, in which the general principles which ought to guide the surgeon in the operative treatment of this condition are clearly expressed and the methods of operation discussed.

Of course, in such cases a correct diagnosis is essential to proper treatment. Intestinal obstruction being a generic term including several morbid states, it is necessary to ascertain the nature of the obstruction and the cause of the symptoms. "It is impossible to discuss under one heading," says Mr. Frederick Treves in his communication, "the treatment of a collection of symptoms that, although alike, may depend upon such different conditions as a fibrous stricture of the bowel on the one hand and an impacted calculus on the other. It would be as reasonable to consider retention of urine as a distinct and isolated malady, without recognizing that it may depend upon a stricture of the urethra in one case and an impacted calculus in the other."

It is the acute form of ileus, demanding prompt treatment, which tests the diagnostic powers; for, if an error is made in not recognizing the nature and gravity of the symptoms, the time will rapidly pass during which an operation might be successful, and the patient will perish. In the chronic cases, and in chronic cases with an exacerbation of acute symptoms, operative measures may or may not be needed to supplement the customary and less dangerous expedients of irrigation of the stomach, distention of the bowel with water or air, massage, electricity, and position.

Mr. Treves, in his valuable paper already referred to, mentioned three anatomical conditions to which may be ascribed the fairly-defined collection of symptoms that make up the condition clinically known as acute obstruction,—*i.e.*, hernia-like strangulation of the bowel, volvulus of the sigmoid flexure, and acute invagination. Under the title of hernia-like protrusion of the bowel, Mr. Treves groups many structural causes of obstruction, among the most common being strangulation by peritoneal bands of all kinds, strangulation by omental ligaments or cords, strangulation by Meckel's diverticulum, by an adherent appendix or Fallopian tube, and, finally, strangulation through slots and apertures, including internal hernia. In each of these a knuckle or loop of bowel is held in bondage until it becomes strangulated, the mechanism being much the same as that of strangulated external hernia. The varieties of intestinal obstruction classed under the above general heading are comparatively common, and form together no less than one-fourth of all known varieties of intestinal occlusion, both acute and chronic.

The treatment proposed was absolute rest, deprivation of food, ice or hot tea in small quantities, and opium in the form of hypodermic injections of morphine. An enema may be employed if the colon be occupied by fæces. If there is no relief and the main points of the diagnosis are clear, laparotomy should be performed within the first twenty-four hours. The same measures are indicated in acute vol-

vulus of the sigmoid flexure, which furnishes one-fortieth part of all the cases of intestinal obstruction. In both, the median abdominal incision is preferred, and the temporary establishment of an artificial anus recommended.

In acute intussusception, if the same preliminary measures have failed to lead to spontaneous reduction, resort should be had to distention by large enemata or by insufflation cautiously done, and, if found irreducible, early laparotomy is recommended, at least within the first forty-eight hours, and, if possible, within the first twenty-four hours, provided, of course, that all other measures have failed. If reduction is found to be impossible after opening the abdomen, or the gut found to be gangrenous, the whole of the involved bowel should be resected and a temporary artificial anus established. This form of obstruction is quite common, and forms no less than one-third of all known varieties of the affection, excluding hernia and obstructions due to congenital defects. Acute cases are defined as those which, if they follow an uninterrupted course, would end in death in seven days: they form about fifty per cent., according to Mr. Treves, of the whole number of invagination cases, and the same proportion, or one-half, of all the examples of the disease are met with in patients under ten years of age. In children an anæsthetic is required during the treatment by forced enema or insufflation, and in many cases reduction can be effected in this way without resort to operation, which, however, must not be too long delayed.

The views of treatment are well summarized in the conclusions of another paper, read by Mr. Mayo Robson at the same meeting, as follows:

"1. In chronic cases—that is, where obstruction is the prominent symptom—medical treatment, such as injection, belladonna, massage, galvanism, etc., will often relieve or cure; or colotomy, or laparotomy, or some other operation, will be so plainly indicated as to leave no doubt as to what should be done.

"In acute symptoms supervening upon chronic, medical treatment—for example, starvation, rest, and opium—may still often bring about a cure; but laparotomy, as a means of diagnosis and possibly of treatment, may be demanded.

"In initially acute cases, delay is often as dangerous as it would be to wait for an external hernia to reduce itself by its own efforts.

"Laparotomy should be performed early —(*a*) as a means of making a diagnosis; (*b*) as a means of removing the cause of strangulation, if such be discovered; and (*c*) as a means of giving relief, if no cause can be found, by opening the bowel above the point of obstruction and carefully suturing it to the surface."

If the induction as to the cause of the obstruction be correct in a given case corresponding with the above condition, it is believed that laparotomy, without materially increasing the risk of a fatal termination, may offer, if not the only, at least the best, chance for life.

THE WORK OF THE COMMITTEE ON ORGANIZATION OF THE INTERNATIONAL MEDICAL CONGRESS.

THE *Journal of the American Medical Association* of last week publishes the proceedings of the Committee on Organization of the International Medical Congress at a meeting held in New York on the 3d inst. The list of appointments and nominations, with Prof. Austin Flint at the head, is one which we think will meet with the endorsement of the profession generally. It is seen that when the time for final action came the members of the Committee, rising to the responsibility resting upon them, acted with marked discretion, good judgment, and an evi-

dent desire to discharge faithfully and impartially the duty for which they were appointed.

The Code question was relegated to the background, and the delegate method proposed by the former committee was abandoned, so that the doors of the Congress, as in its previous sessions, will be thrown open to all reputable members of the regular medical profession. The Committee has done its work so much better than the manner of its appointment had led us to expect, that the result is the more acceptable and gratifying. It was a judicious course to pursue to leave some of the appointments unfilled, so that the Executive Committee may within thirty days insert the names of those who had withdrawn their names from the organization under a misapprehension of the motives and methods of the Committee on Organization. It is hoped, the way being now open for harmonious co-operation, that all may unite in striving to secure the success of the Congress, the prospects for which are brighter at present than they have been since the invitation to meet in 1887 in Washington was accepted.

NOTES FROM SPECIAL CORRESPONDENTS.

PARIS.

ON the 12th inst. the fourteenth session of the French Association for the Advancement of Science opened at Grenoble, under the presidency of Professor Verneuil. His opening speech, taking for his subject "Surgery in 1885," was full of the caustic wit of the veteran surgeon, and conveys some good hints that will apply quite as well in America as in France.

Dr. Verneuil began by saying that some had wished to exclude medicine from the circle of sciences and range it simply among the arts, and against this he entered his protest. He wished to inscribe resolutely among the sciences that portion of human knowledge which serves to introduce us into the world, to keep us here as long as possible, to develop, restore, and protect our organs, rendering great services at all periods of life. In fact, it joins to its own proper merits that of keeping in good health those *savants* who decry it. It is a singular thing that of all the applied sciences medicine, which is incontestably the most useful, is the most disputed. It is also the most difficult; but nevertheless everybody thinks himself capable of expatiating on it or prating about it. "The art of curing has long been divided into two branches, medicine and surgery. Every century has found some one to deplore this and show its dangers, but they only preach in the desert, for the separation seems to be more and more marked. Plenty of doctors will admit without blushing that they know nothing of surgery, and the surgeons, if they do not proclaim it, prove very often, alas! that they know very little of medicine. All the world are accomplices to this state of things, and they all suffer from it, but no one complains. It is curious, indeed, to see how the world judges of this matter. You will hear plenty of people say that they believe in surgery but not in medicine, and when you ask why, they will answer quite gravely that 'surgery is a positive art, and medicine is a conjectural one; that the first is daily making advances, while the last has not progressed since the time of Hippocrates.' From this homage to surgery you infer that this fine talker will give all his confidence to those who practise it. Not at all. Out of twenty persons to whom we offer our services and our armamentarium, fifteen at least will refuse outright; and if some doctor, some apothecary, or even a simple herbalist, will let them see a possible way to a cure —without operation—by some simple drug, a plaster, or the omnipotent massage, or with the electrical current *more or less continued*, this convinced apostle of surgery will place himself at once in their hands. Another popular prejudice is the idea that surgical affections can only be cured by violent means, —hot iron and fire, in fact, or cold steel,—so that the surgeon is often compared to a butcher steeped in blood and carving flesh with immense cuts. Some persons, thinking to be witty at our expense, call us 'sausage-makers,' without thinking that they are comparing themselves to the porker, the most filthy of the quadrupeds! But it is enough for any one to visit any of our surgical wards to convince himself that the larger number of our sick are cured without losing a drop of blood, or even one millimetre of their skins. In fact, of one hundred patients, not one-fifth, or at most not one-quarter, have to submit to a real cutting operation.

"However, the number of operations proves nothing against their legitimacy. A well-known practitioner operates a great deal because patients who need operating are brought to him in large numbers. The question is not, Does he operate *often?* but, Does he operate *too often?* for quantity by itself does not constitute excess. If the abuse of operating be condemned, no one dreams of proscribing the

use of it. Let us recognize, however, that some cases treated by operations might have been cured without: for instance, a fracture, for which we amputate, or a white tumor, for which we perform resection. But are we guilty for having amputated or having resected? Not at all, for we have based the operation on probabilities. Conservation offered us twenty chances of safety, but the sacrifice of the member offered forty! So in operating we acted as real conservative surgeons.

"Take a case of ordinary gravity, where operation is offered and the patient refuses. He consults elsewhere, and a pharmaceutical treatment is proposed; he employs it, and is cured. We defend ourselves by invoking the usual hopelessness of drug-treatment, and also the length of time (for many patients want to return to business quickly). Then, again, surgeons are often impatient: so that if the patients say, 'Time is money,' I suspect the surgeons may murmur in an undertone, 'Operation is also money.' There is only one way to prevent errors of prognosis,—that is, for surgeons to do as the public does, proclaim operations to be the *ultima ratio*, and not perform them until *all* other means have been tried. Many do not try *everything*. They content themselves by saying, 'All the ordinary means have been exhausted,' etc. In this they imitate those good people who, to excuse themselves for going to quacks and somnambulists, say they have been 'abandoned by all the doctors,' when in reality they have only consulted one or two obscure practitioners, two druggists, and the veterinary surgeon, with perhaps a neighboring nurse. Many a time, when interrogating patients who come to consult me, I have been struck with the insufficiency of the *therapeutical* means that had been prescribed for them. Often I have sent them to the druggist or the bandage-maker, or even to the sea-side or watering-place, to see them return relieved, if not cured; and I am always proud of these conservative victories.

"Certainly in the material point of view, when the hour of remuneration has come, it is not so fine to see that we are, as a rule, offered only one-fourth as much for having laboriously saved a member as for having quickly cut it off! But, then, with what great prestige is the surgeon surrounded who never recommends useless sacrifices, and what satisfaction is his when the result justifies his advice! To take only one example: what glory would be his who could cure cancer without operation! While we are in the humor, let us confess that some men operate too much. At certain times and in certain countries, even in our days, the 'prurigo secandi' is a sporadic malady, endemic and epidemic, for which no vaccine has yet been found. In the seventeenth century transfusion was the rage; in the eighteenth, they trepanned any one who fell on his head or who was suspected of having more or less cracked his skull. During the wars of the end of last century and the first of this, every broken member was amputated. When I entered the profession, tenotomy was the rage. They cut all the tendons, all the ligaments, all the muscles in all parts of the body, pretending to cure all sorts of troubles, even stammering and humpback, bandy legs and deafness. Later the 'resection mania' arose. It flourished in England and Germany. When one specialist operated, all operated. When one cut something, all the rest did the same, except a little differently and with different tools. If some day a museum is founded of instruments, what immense glass cases will be needed to contain the lithotomes, urethrotomes, hysterotomes, and other machines in *tome*, including those little instruments—not named, I think—which are intended to cut the stenosis of the nasal canal! These contractions hardly ever exist, by the way, and when they do they don't need to be cut.

"Gynæcology and ophthalmology are disputing the place of honor on this new turf. I believe that success is with the first. Lately, for instance, independently of cauterizations, so often of no use, we have seen Emmet's operation, as well as Battey's, Hegar's, Alexander's, and many others. In fact, a gynæcologist risks passing for one having no merit if he doesn't produce a series of operations.

"The facility with which certain practices become popular is surprising. For instance, the '*raclage*' or '*rugination*' [scraping] of cold abscesses. The theory can be sustained, but it seems more prudent to rely on experience. For this we must wait; but the present generation won't do so. So they '*racler*' away, even penetrating to the spinal canal in doing so; and, notwithstanding the operation gives '*encouraging results*' (that is the usual expression), the poor patient goes to join his ancestors in a better world. A present mania consists in applying the actual-cautery points to all external affections. This has succeeded to sinapisms and blisters, which are quite as good, but the cautery has the advantage of having a striking '*mise en scène*' that shows off well. It is feared by children, and is not the joy of parents. These things may be useful, but they are abused in use. There is too much transfusion, too much trepanning, too much tenotomy, too much resection, too much excision of the iris, too much work done in the pelves of women, and entirely too much promenading of thermo-cautery on man's poor body. A great deal has been done of late years in the way of extirpations of the larynx, the pharynx, the uterus, the kidneys, etc. What has been the result? At most, ten per cent. cured. For those ten the operation has been of use to a greater or less degree; but what of the *ninety* others? Can abuse be denied?

"Another trouble with the people is that they want to be assured that their malady will not return: as if a gardener who pulls up the weeds can say they will not come back! Again, they will say, 'Oh, I won't go to Verneuil' (they suppress Doctor or Monsieur for any one who is known), 'because he won't do enough.' A mother, one of my former patients, can't bear to hear my name, because I advised her daughter to use crutches instead of operating. This discourse might be called 'The Confessions of a Surgeon;' but I don't wish to present my personality: I simply love truth, and I am not afraid to tell it. For a long time I have repeated constantly, '*Surgery is not what a vain people think it is*,' and I add to that this remark, '*Surgery is not that which surgeons themselves make it.*' It is this that I wished to represent to you to-day. To the world I would say that they are wrong to consider surgery as a narrow speciality, a sort of precise trade, like clock-making, for instance; also, they are wrong to insist on surgeons having that infallibility that constructors of machinery have; again, they are wrong to put their acts in contradiction to their words by judging lightly those things for which their incompetence is notorious. On the other hand, I wanted to say to my brothers that, if they wished to be classed with true skilled workers and not remain artisans, they must make light of their manual ability, take little credit for success in operations, but follow, above all, the therapeutic method,—that is to say, definite *cure* in the true sense of the word. Refuse all suggestion of being specialists, and remain modestly within the circle of general medicine. Be, above all, pathologists; extend your knowledge in etiology; try to perfect yourselves in diagnosis and prognosis; and be convinced that the maximum of cures will come to him who is the best educated and the wisest. Naturally you will follow the supreme end of medicine, cure of your patients, but you will use more care in the means of cure, prouder of being classed with therapeutists than with operators. You will only arm your hand at the last extremity, after having loyally tried all nature's remedies; when convinced of the impotence of all the hygienic and pharmaceutical agents; when the necessity of intervention is proved. Then always decide for the least dangerous of operations: '*actum minoris periculi.*' This may be the most radical, the most destructive in appearance. But we know that in certain wounds of members, for instance, amputation done quickly and high enough is ten times more conservative than resection; that for stone, lithotrity is less dangerous than cutting; that ovariotomy is more benign than multiplied injections of iodine. I propose this rule for young practitioners: When they have to decide between rival operations, put in the *first* rank efficacy; *second*, gentleness; *third*, facility. Always know how to refuse an operation. But you will say, 'But my neighbor will operate.' Well, let him do so. Most likely it will be a failure. He will pocket the *sesterces*, but you will gain the esteem. It's not much, some will say. It's a great deal, others will think, who assimilate medicine to the most sacred things, and repeat, with the poet,—

> 'Art is saintly. God made it so, that in the world
> Everything should not bend before power and gold.'

"To furnish the world with honest surgeons is my design. It is all the same to me to hear that in London, Vienna, or New York they operate more and better than they do in Paris, so long as they add that in the last city they cure oftener and kill a little less.

"'Happy the people who have no history,' has been said. Happy will be the surgeon who has no operating-case, and who knows how to do without it. I hope one day, thanks to progress, that surgery may cease to shed blood and to cause tears to flow."

Cholera discussion is the order of the day in France, and M. Chauveau had an interesting paper to read at Grenoble on the "*Preventive Inoculation for Cholera.*" He seems not inclined to give up the idea of inoculation yet, and thinks that under proper conditions science should allow attempts at prevention of cholera by injections of culture-liquids containing the comma-bacillus.

Prof. Bouchard, who followed with "*Clinical Observations and Experimental Researches on Cholera*," concluded a long paper with the following statements: "Analogy leads us to consider cholera as an infectious malady,—that is to say, a microbe malady. This microbe produces in the human organism a morbid poison (cholera). To this intoxication is soon added another poison (uræmic poison). *Myosis* is the indication of this last symptom. The pathogenic agent cannot inhabit exclusively the intestinal canal" (in his opinion). "The comma-bacillus *is not* the producing agent of the choleric poison."

To continue the subject of cholera, as it may closely interest America some day. M. J. Guérin recently read a paper on it at the Paris Académie de Médecine, in which he tried to show that its coming can be told by the existence of *cholera nostras*, which he thinks is almost the same malady. Prof. Brouardel went down to Marseilles as soon as the cholera broke out there, and he condemns the city authorities for having done nothing at all to prevent the disease since last year. The city is as dirty as ever, and nothing has been done even to commence the famous projected sewers. Dr. Brouardel inclines to the opinion that the cholera now at Marseilles has not been brought from Spain or India this year, but that it is the remains of last year's epidemic that has broken out again this hot

weather, finding a favorable hotbed of evolution there. It is to be hoped that it is only the tail of last year's invasion, and that it will go no farther. One of the curious remedies proposed to the Academy for cholera is that of *painting the abdomen with collodion*, reported by Dr. Drouet. A Dr. Patritti says the success of this method is so great that he applies it exclusively in cholera.

We have been having a little resurrection of blennorrhagia. First, at the Society of Biology in Paris, M. de Sinety stated that he had examined over sixty women with the disease, and in all except one he found in the pus a large number of the gonococci which seemed to have no relation to acidity or alkalinity of the secretion. He tried permanganate of potash, oxygenated water, and solutions of corrosive sublimate, but these antiseptics seemed to have no action on the micro-organism. The patients were cured of their discharge in six weeks, but the gonococci persisted even for several months afterwards. At the Grenoble Congress, M. Diday said that when a blennorrhagia was treated with copaiba, and then the treatment was stopped, the disease usually reappeared. From this he thought that the specific action of the medicine caused a diminution of the nutritive qualities in the parts where the gonococcus flourished, which was lost as the action of the balsam went off and allowed the gonococcus to come back.

M. Constantin Paul, who followed on this subject, said that increase in temperature would make these microbes succumb. He said he cured in eight to ten days with warm injections of a solution at $\frac{1}{10000}$ of the corrosive sublimate. Others followed by stating that many patients could not bear hot injections. Dr. Pamard advised this injection:

℞ Subnitrate of bismuth, 2 gr. 00 c.gr.;
Iodoform, 50 "
Mucilag. acaciæ, 100 "
M.

While on the subject, let us say a word or two on Dr. Bloch's remarks "*On the State of the Prepuce in Infant Jews.*" Two operators had made some four thousand seven hundred and ninety-nine circumcisions. They found that they very often had to operate on rudimentary prepuces not covering the gland. In more rare cases (one in five hundred, about) an absence (complete) of the prepuce was found. M. Landouzy remarked that there was an infirmity he noticed more often in Jews than in the other races, which was *flat foot*.

Prof. Grasset presented an interesting study of the clinical thermometer. The temperature of the body taken at the axilla, as we do every day, should be the index of the quantity of heat produced and the quantity *lost*. This second element, he claims, is not constant,—that in fact two patients having the same temperature do not give off the same quantity of heat, have not in fact the same quantity or intensity of fever, and therefore the emission of heat is not proportional to the degree marked on the thermometer and its indication is not exact. Dr. Grasset thinks that there is an easy means of rectifying this, which is to notice not only the final degree marked, but also the speed or quickness with which the mercurial column mounts up. In some patients it will go up quickly, in others the same instrument will reach its maximum slowly. This speed must be taken into account.

M. A. Luton proposed to make injections of metallic mercury into the intra-muscular tissue for treatment of syphilis. Some fifteen cases in which it was tried seem to confirm the author's theory. The absorption was so complete that stomatitis was observed. The injections were commenced with *one gramme* of the metal. It is recommended in grave cases of syphilis at the transition-period and in tertiary forms.

For Convulsions in Children (Dr. Jules Simon):

℞ Bromide of potassium, 1 gramme;
Musk, 0 gr. 05;
Syrup of codeine, 5 grammes;
Syrup of orange-flowers, 30 grammes;
Lime-water, 100 grammes.
M. Ft. potio.
S.—Teaspoonful to child of two years. To be preceded by an enema.

In the way of large cutting operations, M. Després has just operated on a woman 56 years old, by amputating *both* breasts for scirrhus at the same time. This was on the 17th of June. Two months later she left the hospital cured. The only thing to be noticed about the operation was that the patient had during fourteen days a regular high temperature of 39° C. in the morning and 39.4° C. in the evening, a regular rise and fall like the normal temperature. M. Després thought this was owing to the great extent of the suppuration.

Baron Léon de Lenval, of Nice, France, has just founded a prize of three thousand francs, to be given to the author of the best application of the microphonic principle to some portable apparatus for hearing-purposes. The prize will be awarded in September, 1888, during the session of the Fourth International Congress of Otology, to be held at Brussels.

THOMAS LINN, M.D.

PARIS, August 25, 1885.

NEW YORK.

THERE are many people, and, it would also seem, some physicians, who doubt the efficiency of quarantine against infectious diseases, yet in this city, a centre of travel from nearly every part of the globe, there have been scarcely half a dozen cases of either smallpox, yellow fever, or cholera during the season,—and this notwithstanding the

existence of epidemics of these diseases in this country or in Europe. Indeed, no case of true cholera has been reported. Whether or not the entrance of the few cases of yellow fever was due to any negligence on the part of the health-officer is doubtful. But it is fair to presume that the almost universally prevailing custom at present of having a physician on board of passenger-vessels aids not a little in the prevention of transportation of contagious diseases; and when we also take into consideration the fact that the voyage from distant ports usually requires a sufficient length of time to allow any germs of the disease to develop themselves in a manifest way, we readily understand why it is that our seaport quarantine has become so efficient. But our health authorities have not trusted alone to quarantine to keep out the cholera. They have appointed an unusually large number of physicians to visit the people in tenement-house districts, and have been prompt in securing the removal of garbage and dirt from the streets.

Too often it happens that the farce of sending a corps of men to sweep the streets without first sprinkling them to lay the dust, and of allowing from several hours to a day to pass before sending carts to take away the loose dirt, dust, and pieces of paper thus gathered together, is seen; and even when the carts do arrive the dust is shovelled carelessly into them, being heaped up above the level of the sideboards, without cover (not even a piece of old cloth being thrown over it), so that from the commencement of the cleansing-work to its completion the wind has had opportunity to carry a large portion of the filth into our houses or to scatter it again upon the streets. By first sprinkling the streets and putting the dirt immediately into barrels (with lids) to be carted to the dump, and by adopting the barrel-system of conveying ashes and garbage away from houses, our streets would be rendered far cleaner than with the amount of labor now required, to say nothing about the wide diffusion of the germs of disease which the present system especially favors.

As salt water contains an abundance of chlorides, does it not seem strange that cities situated near the sea, with only a limited supply of fresh water, do not clean their streets with sea-water, of which the supply is practically unlimited? By this means the streets of this great city might be kept neat and clean, and, the air being less contaminated by dust, there would be greater cleanliness possible inside of the houses both of the wealthy and of the poor.

Some of the officers of the Board of Health make a raid now and then on the venders of unwholesome articles of food, such as immature or over-ripe and spoiled fruit, spoiled meat, candy containing poisonous pigments, etc. In a large city the best and the worst of all things can be bought. If there were no purchasers for an unwholesome article of food, of course only good articles would be sent to the market for sale: just as when people cease to buy advertised medicines or to patronize quack doctors, quack doctors and advertised medicines seek more congenial surroundings. The selling of green fruit or of poisoned candies might perhaps be obviated by simply preventing their entrance into the market (for poisoned candies are usually made in wholesale-houses), but the trouble is that fruit picked after it has become ripe is apt to spoil before it reaches the consumer, and that which is picked too long before it has matured has not its best flavor and may be positively unwholesome. Caution should, therefore, be used in eating fruit bought in a large city. It is quite probable, however, that those who consume fruit and vegetables nearly at the point of undergoing decay get a better quality of food than those who always insist upon having only such articles as show no specks which may detract from their beauty or point to beginning decomposition.

So far we have had very few days of really hot weather, and within the last week or two there have been a number of days when the dampness and chilliness of the atmosphere have rendered it slightly uncomfortable without a fire. Since the early part of July cases of sunstroke have been very rare.

Regarding the typhoid outbreak at Bellevue Hospital, the following account has been given me by two house-physicians, Dr. Sayre and Dr. French, Dr. Sayre having seen most or all of the cases. The newspaper reports were exaggerated. Prior to July last the sewerage had been considered faulty, some cases of typhoid fever having developed among the attendants of the hospital, at least one or two of whom died from the disease. In July the pipe-system in the hospital began to undergo alterations in accordance with plans approved by the health authorities. During the course of the repairs, two nurses, two orderlies, one physician, one patient who had been in the hospital for another disease, and one carpenter were taken ill with typhoid fever. All of these persons must have contracted the disease within the walls of the hospital, unless it were the carpenter, who worked out a part of his time. In the case of Dr. Stokes, the plumber assured him that the pipe opening into his room had no connection with the sewer, the connection having been cut off. Notwithstanding this statement, the contrary was found to be the case, and when the doctor became ill the plumber admitted an oversight regarding this pipe and then stopped it up. Dr. Stokes was advised to leave and go to the country, where he is now convalescent. The symptoms in these cases were those usually present in typhoid fever, but were not of the severest form. Only two of the patients manifested marked

cerebral symptoms; none died. The house-physicians say that about an average number of cases of typhoid fever is being admitted from outside.

The two cases of death caused by the well-known and highly-esteemed druggist Am Ende, of Hoboken, who put up morphine in the place of quinine, for which the prescription called, have made a good deal of excited discussion as to how such accidents might be avoided. Perhaps the surest precaution to the patient would be that suggested in a satirical tone by one of our dailies,—namely, to require the druggist to take a dose of the preparation before sending it to the one for whom it was intended, the idea being that to compel a man to jeopardize his own life if he make a mistake will be the best safeguard against an error. It would be rather severe, however, upon a druggist doing a large prescription-business. It is with the same view that the State has established a law making a druggist committing such a mistake liable to imprisonment. We would naturally suppose that the druggist's respect for the life of his customers would be the strongest incentive to caution; but druggists are not very different from persons in other walks of life in their greater care for the lives and happiness of themselves than for those of other people, and if these are threatened their precautions against accident will be enhanced. We may suppose, at any rate, that, so far as the feeling of caution is concerned, the druggist has the highest motive against error in prescription-work. But the more nearly impossible it is to make an error, the less likely is an error to occur. Some druggists adopt the plan of having the clerk who has mixed the ingredients read off their names and quantities to a second person who has the original prescription in hand. But this method would of course be impracticable where the compounder was alone in the store. The causes of accidents seem to be either in the prescription itself (and therefore lying with the physician); in the druggist misunderstanding the prescription; in an abstracted state of mind, during which he unintentionally takes up the wrong drug; or in the close proximity of a non-poisonous with a poisonous drug looking alike and being kept in similar bottles. To say nothing about the first two sources of error, the latter, we might suppose, could be effectually guarded against by, for instance, putting all poisonous drugs, especially those poisonous in small doses, together, at a distance from the non-poisonous, particularly if they be alike in appearance; also by putting these different kinds of drugs into bottles of different forms, different sizes, and different colors, and by placing no two poisonous drugs of similar appearance close together. Drugs poisonous in minute quantities should be classed together. Thus the mere fact of taking a drug from this locality would excite caution; a bottle of different size, form, or color would further arouse suspicion; and if a mistake should be made of taking a bottle from the same shelf but containing a different drug, only a correspondingly small amount would be added to the prescription, not sufficient to kill. No druggist, however abstracted in mind, or however much troubled by talkative customers, would be likely (if I may exaggerate the idea) to go to the roof for morphine when quinine was demanded which had its place in the cellar; and the attention of any druggist would be called to his mistake should he take up a gallon bottle for a quart one, a square bottle for one of round form, or a white bottle for a black one.

Our medical colleges will soon again open their doors for the usual host of students aspiring to Æsculapian honors. The proposed new building for the College of Physicians and Surgeons will not be ready for the approaching session. Many people are now returning to the city from the country; but the physicians who are most regular in their attendance on our Medical Societies will not begin their labors of the fall and winter season until a little later.

Two stories have been added to the laboratory of the Medical College of the University of the City of New York. Under the prudent and intelligent direction of Dr. Carpenter, the pathological laboratory has become an interesting and important part of the collegiate course.

R. C. S.

PROCEEDINGS OF SOCIETIES.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

STATED MEETING, JUNE 4, 1885.

The President, B. F. BAER, M.D., in the chair.

BINIODIDE OF MERCURY AS A DISINFECTANT IN OBSTETRICS. BY DR. E. R. BERNARDY.

MY attention was first attracted to the use of the biniodide of mercury as a germicide by Dr. Miguel, who published in *L'Annuaire Météorologique de Montsouris* the results of some experiments made to determine the minimum amount of a disinfectant necessary to prevent fermentation in a litre of sterilized beef-broth. His experiments show that the mercurials are the best antiseptics, the biniodide being nearly three times as strong as the bichloride. In his table of disinfectants he places the bichloride the fourth on the list. To a litre of sterilized beef-broth he found it required 0.005 gramme of the biniodide of mercury to keep the broth pure; while 0.070 gramme of the bichloride of mercury was necessary to produce like effects. This shows that bacterial life is impossible in a solution of one-forty-thousandth

part of the biniodide, while of the bichloride it requires the one-fourteen-thousandth part. I was so forcibly impressed with his experiments that I determined to give the biniodide of mercury a trial in obstetric cases where it would be necessary to use an antiseptic. The following are the cases in which it was used:

Case I.—On February 7, 1885, I was requested to take charge of Mrs. D., who had been confined about six weeks previously. It had been her second confinement. The duration of labor had been short and delivery natural, but an extensive laceration of the perineum had occurred. The attempt had been made to bring the parts together by suture. On the third evening she was attacked with severe frontal headache and chills, followed by fever, with great tenderness over the region of the uterus. There being no improvement in her condition, her medical attendant was discharged, and another called in, who gave such an unfavorable prognosis that he also was requested to cease his attendance. I was finally called in on the above date. The patient had well-marked symptoms of septic poisoning; pulse 130 to 140, small and thready, and disappearing under pressure of the finger; temperature, 104° to 105°; slightly delirious; constant vomiting; abdomen swollen and excessively tender; uterus enlarged, extending fully three inches above the pubis. On the right side there seemed to be a growth extending up into the abdomen, tender on pressure. On making a vaginal examination, I found the os dilated so that my index-finger could readily enter the uterus. Its withdrawal was followed by a gush of highly offensive matter. The uterus was surrounded by organized lymph and was immovable. The mass on the right side was easily detected, and was continuous with the lymph surrounding the uterus. The vagina was hot. The perineum was torn to the anus; the surface raw, and secreting an acrid matter which scalded the surrounding parts. The urine was dark; on standing, a reddish material settled to the bottom; it looked like blood-corpuscles. Dr. A. E. Roussel examined the specimen and reported it to be slightly acid; no albumen nor sugar; microscopically he detected occasional pus-corpuscles, and numerous bacteria. In conjunction with internal treatment, intra-uterine injections were made three to four times a day. I first used a solution of bichloride of mercury one to two thousand. This was continued for three days without any marked results. The discharges continued as offensive. On the fourth day the bichloride was substituted by a one to four thousand solution of biniodide of mercury. Within twenty-four hours an amelioration of all symptoms took place; the pulse fell to 100; temperature, 101°; urine became clear, and the discharge odorless. The injections were continued for ten days, their frequency being gradually reduced. The uterus returned to almost its normal size, and the lymph was gradually absorbed. The patient recovered.

Case II.—March 19, 1885, I was called to attend Mrs. W. in her first confinement. On my arrival, found she had been in labor several hours. Examination showed the os perfectly dilated; bag of waters protruding, vertex presentation, first position, ruptured the amnion. The vagina near its outlet was roughened with venereal warts, which spread also over the vulva. Labor progressed rapidly, and the second stage was happily ended. After waiting nearly an hour making compression on the uterus, I made slight traction on the cord, and, while doing so, felt, with my hand upon the uterus, a cup-like depression of the fundus take place. This convinced me that I had an adherent placenta to deal with, and it would be folly to wait any longer. On introduction of the hand I found the placenta completely adherent,—one could hardly say which was uterus, which placenta. After considerable trouble, I at last succeeded in detaching the placenta: it took fully three-quarters of an hour. On making a second examination, my hand came in contact with long shreds hanging from all sides of the uterus: the more I scraped, the more there seemed to be. I gave the patient ʒii of the fluid extract of ergot. The patient did well for ten days, when towards evening she complained of a chill and severe frontal headache. I gave her quinina sulph., gr. x, with morph. sulph., gr. ¼, at one dose, and washed out the uterus with one to four thousand solution of biniodide of mercury. The pulse was 115, the temperature 102°. The discharge was highly offensive. The injections were repeated every four hours. On the evening of the next day the pulse was 98, the temperature 100°, discharge odorless, and the patient was perfectly well in ten days more.

Case III.—April 23, 1885, I was requested to call at once to see Mrs. K., who was reported in imminent danger of death. This was her ninth confinement. The history of the previous ones, with one exception, was not good. Her labors were natural, but were followed by terrible flooding and protracted convalescence. I found the patient in an attack of puerperal convulsions. I gave at once gr. xxx of potass. bromide and gr. xx of chloral hydrate. This dose was repeated in half an hour: ten minutes later another convulsion occurred. I then bled the patient freely. The os uteri was somewhat enlarged, the cervix soft and dilatable; vertex presentation. Dr. Curtin, whom I had sent for, having confirmed my opinion, and considering that the patient's time was quite up, we decided to etherize, dilate the cervix, and deliver. The forceps were applied, and traction made at intervals. A living child was safely delivered. Continuous pressure was maintained over the uterus, but after the expulsion of the placenta the uterus did not contract until it had been washed out

with hot water. The bromide and chloral was continued every two hours, and no more convulsions occurred. The patient did well up to the fourth day, when the discharges became very offensive, the pulse accelerated, and slight tenderness existed over the uterus. No chill nor fever. The uterus was thoroughly washed out with a solution of the one to four thousand biniodide of mercury. Within twenty-four hours the discharge became odorless, and the tenderness over the uterus had disappeared. The patient recovered after a tedious convalescence.

In these cases it will be seen that the biniodide was prompt in its action, markedly so in Case I., where the bichloride and the biniodide were both employed, the result being decidedly in favor of the biniodide. Naturally it will be said, here are only three cases from which deductions are to be drawn, and it is only after it has been carefully used in a large number of cases that its efficacy can be proved. It is for this reason that I call to it the attention of the members of this Society, who are in a position to give it a fair and impartial trial and at some future time may give the results of their investigations. I have found the one to four thousand solution of the biniodide non-irritating: I have used it extensively in my gynæcological practice, and in washing out pus-cavities, with good results. In it we have a preparation where the smallest amount of drug is used, with results far exceeding those of any other antiseptic. On account of the small quantity of mercury, there will be less risk of salivation.

The method I have pursued in making the solution is: Take one and three-fourths grains of the salt well triturated in a mortar and rubbed, with one quart of boiling water slowly added, giving a solution of one to four thousand three hundred and ninety.

Since writing the above, I have seen in the *Philadelphia Medical Times*, May 16, 1885, that Dr. Panas, eye-surgeon of the Hôtel-Dieu, uses the one to twenty-five thousand solution of biniodide of mercury in eye-cases. He makes the following statement: "After a number of experiments, I have convinced myself that a solution in water one to ten thousand of the bichloride or a similar solution one to twenty-five thousand of the biniodide of mercury is much superior to any other antiseptic solution employed in eye-surgery." Here again we have a statement that the biniodide in a smaller quantity is as good an antiseptic as the bichloride.

Dr. MONTGOMERY'S experience has led him to the conclusion that the bichloride of mercury is far more effective as a disinfectant than carbolic acid. Its introduction into the Philadelphia Hospital was due to Dr. Parvin, who found it very satisfactory. In eighteen cases of puerperal fever that were treated with bichloride injections, only three deaths occurred. This success was attributed by the hospital staff to the use of the bichloride. Dr. Montgomery in private practice follows the plan of Dr. Garrigues, of New York, of avoiding intra-uterine injections after labor, but applies pledgets wet with a bichloride solution over the vulva, after carefully cleansing away clots and washing the external parts with a similar solution. This sponging is repeated twice every day. In his last term at the Philadelphia Hospital he had only two cases of puerperal fever, one of which commenced twelve days after delivery. The history of Dr. Bernardy's cases shows an equal if not better antiseptic in the biniodide of mercury.

Dr. J. V. KELLY, some years ago, had several fatal cases of puerperal fever, and about twenty-five cases that got well. The trouble commenced in a case of abortion in which he did not succeed in removing all of the placenta. He was at the same time attending a bad case of erysipelas, and at that time the relationship of puerperal fever and erysipelas was not known to him. He was on the point of giving up his practice and leaving the town, and he consulted Dr. Goodell on that question. Dr. Goodell discountenanced such action, but advised him when attending an obstetric case to remove his coat and roll up his sleeves, and wash his hands and arms well with turpentine, using the nail-brush thoroughly. Since that time he washes his hands in turpentine every day, and again before every case of labor. He also uses a wash of vinegar or carbolic solution before touching a puerperal patient. He has had no puerperal fever or other septicæmic symptoms since that time.

Dr. PARVIN said, "As a reference has been made by Dr. Montgomery to my having used corrosive sublimate vaginal injections in the cases of puerperal septicæmia under my care in the Philadelphia Hospital in my term of service last year, I will refer to the antiseptic treatment in the cases occurring the present year. When I took charge of the obstetric ward on the 1st of January I found five recent cases of septicæmia: two of these patients died; one of the two had apparently recovered and then was attacked by pneumonia. Quite possibly this pneumonia had a septic origin. Then there were at least seven other cases; but all these, as well as three of the original five, recovered. Injections of a solution of corrosive sublimate, one to five thousand, were used in all cases immediately after labor. The external parts were washed, too, with a similar solution: this injection was repeated twice a day in all cases for the first week after labor, while it was used oftener in those having septicæmia. Intra-uterine injections were used only when vaginal injections failed to correct the offensiveness of the discharge; but, as is well known, there may be serious, even fatal, cases of septic disease though the lochial flow is not at all offensive.

"In private practice, after once washing out

the vagina thoroughly with the antiseptic solution immediately after labor, this need not be repeated unless symptoms demand it; but the bathing of the vulva twice a day with the solution ought not to be omitted. Add, if you please, to this treatment the use of antiseptic napkins, a practice pursued by Dr. Montgomery at the Philadelphia Hospital so successfully, and I think we have taken the most important means to guard against the entrance of septic germs after labor.

"I have had no experience with the biniodide of mercury, and do not know that it will supersede the bichloride. The argument in its favor is as strong as three successful cases can make it, but these are entirely too few, as Dr. Bernardy justly says, to prove its value and its superiority. In one of the doctor's cases labor was induced, apparently on account of eclampsia. Now, is this the best treatment? Obstetricians are by no means agreed; some of the best condemning such treatment. But the subject is not properly before us now, and therefore no further remarks will be made upon it."

Dr. MONTGOMERY uses the bichloride solution as an external wash only, not as an injection. He thinks the records of the hospitals in which injections are used will not show as good results as those in which they are omitted, if septicæmia be not present.

Dr. WILLARD had a warning to sound with regard to the use of bichloride solutions of stronger grades. He had been using washes and antiseptic dressings made with one to one thousand solution of bichloride, but, in consequence of what was written about the advantages of stronger solutions, he increased the strength of his dressings to one to five hundred, and within twenty-four hours the stools contained bloody mucus, and were small and griping; there was vesication about the wound and around the limb under the dressings. Entirely dry dressings had been used, but they had been moistened by pus and serum from the wound. He does not see the advantage of strong solutions in serum, as one to one hundred or seventy-five. The serum is a decomposable substance, and an uncertain portion of the antiseptic agent is destroyed by it: weak solutions in boiled water seem more reasonable and answer every purpose.

Dr. LONGAKER has been much interested in the third stage of labor, and would like to hear how Dr. Bernardy removed the placenta in the adherent case narrated by him. He has been using Crédé's method with great satisfaction. He thinks the hand should be kept out of the parturient canal as much as possible. The routine employment of vaginal injections after labor he did not consider necessary, and preferred depending upon outside washes. He finds that the temperature rarely rises during the puerperal period, even after instrumental delivery. He thinks care during the third stage will avoid the necessity for antiseptics.

Dr. PARISH agrees with Dr. Parvin's views. He has found a solution of one to one thousand of chloride irritating, and he now uses one to two thousand or five thousand. Strong solutions cause an appearance resembling erysipelas or inflammation of the derma. Injections are not necessary in every case. When the surroundings are cleanly and the patient a multipara, he does not use them; but in primiparæ with contusions or lacerations, and when version or instruments have been employed, he is in the habit of injecting a weak solution of bichloride immediately after delivery, and he does not repeat it, but simply washes out the vagina. Cleanliness of hands, instruments, and nurse is the most important point. He has never had any trouble in private practice.

Dr. BERNARDY, in closing the discussion, remarked that he thought he had a far better antiseptic in biniodide than the bichloride. He had used the former in surgical cases as well as in gynæcology, and always with good results. He does not use intra-uterine washes in every case of labor. He has attended since the first of the year about seventy cases of labor, and he has employed the intra-uterine injections in only the three cases detailed. In every case of labor he uses carbolic acid soap to cleanse his hands and arms and the external genitalia of the patient. The eclamptic patient had reached or passed her full term, and there was no reason why the child should not be removed. In the case of adherent placenta it was pulled off forcibly, and a shreddy lining was left in the uterus, as no line of separation had formed. He believes the dangers consequent on passing the hand and arm into the uterus and vagina are much exaggerated, and he does not hesitate to do so when the exigencies of the case demand it.

GESTATION IN A SARCOMATOUS UTERUS SIMULATING EXTRA-UTERINE PREGNANCY. BY DR. E. R. BERNARDY.

"October 3, 1884, I was requested to visit Mrs. McG., delicate, aged about 30, married six months. She was said to be suffering from a cold. I found the patient up; temperature 105°, pulse 130, with a high fever and a severe cough. Examination of the lungs revealed double pneumonia. At the same time noticing the abdomen prominent, I inquired, and was informed that pregnancy was five months advanced. The abdomen was rather large for that period. On Sunday, October 5, she complained of a sharp pain in the right inguinal region: the pain was excruciating, and demanded the administration of large doses of morphia before any relief was obtained. I found the right inguinal region filled by an immense growth, reaching almost to the lower border of the liver. The uterus,

or what appeared to be the uterus, was enlarged, and pushed well towards the left side. On vaginal examination, I found the right side of the pelvis filled by a growth. At first I thought I detected fluctuation, but closer examination showed it to be hard to the touch. The uterus was jammed well towards the left, and was immovable, the neck somewhat absorbed, the os tilted up behind the pubis. To reach it the finger had to be passed well upward: it was closed and soft. The patient had never had any uterine trouble. Menses always came without pain; they never appeared after her marriage, which occurred one week after a period. Her health remained good for three months after marriage, when, while out walking, she was suddenly seized with a sharp, lancinating pain in the right side of the abdomen. The pain was so great that she almost fainted, but, being a woman of strong will, she finally, after suffering terrible agony, reached home, and went to bed. No physician was called in. Next day there were slight stains of blood on her night-dress. Under absolute rest, the pain subsided, and at the end of a week she was about her household duties. The pain in the side returned if she overexerted herself. Sexual intercourse was painful, and was followed by traces of blood the next day. Believing that the symptoms pointed to either extra-uterine pregnancy or a tumor complicating pregnancy, I asked Dr. Goodell to meet me. By the time the consultation was held, October 8, a severe attack of peritonitis had commenced. This complicated matters, as a close examination was impossible. On account of the distended and painful condition of the abdomen, it was impossible to trace any outline of the growth or uterus. It was decided that the symptoms and history pointed to extra-uterine pregnancy, but that undoubtedly the uterus contained something, whether a tumor or a child, in the present condition of the patient, it was hard to decide: the leaning was towards a pregnant uterus. By October 16 the peritonitis was under control, the lungs no better.

"October 19, I was sent for, the messenger stating that there was a renewal of the peritonitis. I found the patient in active labor, the fœtus descending rapidly. In half an hour labor was completed. I readily detected the large growth filling the upper portion of the right side of the pelvis: the uterus was surrounded by a hard growth. The cervix was hard. From this time the lungs improved, but she remained extremely weak, and there was a constant dribbling of blood from the vagina. November 3, the growth was still present and the cervix hard, and I began to think of malignant disease in connection with the tumor. I had applied, night and morning, to the abdomen, ointments of mercury, belladonna, and iodine equal parts: this seemingly had the effect of causing the absorption of the large growth, but the mass surrounding the uterus remained the same. November 27, vomiting occurred, and was arrested with difficulty; a bloody discharge from the vagina and a constant sore feeling over the region of the uterus, which was still towards the left side. The patient's condition was not good: she was extremely weak; the slightest exertion would exhaust her and bring on bleeding from the uterus. December 26, I found her suffering from pleurisy, the left pleural cavity full of fluid. January 1, abdominal dropsy had set in. A consultation with Dr. Goodell was held. A positive diagnosis of malignant disease was made.

"*Prognosis.*—Death at any moment. She died suddenly the same evening, while talking to her husband.

"*Post-mortem Examination*, by Dr. E. A. Roussel, twenty-four hours after death.—Patient greatly emaciated. Thorax: a large amount of effusion completely filling up the left pleural cavity, while the cavity of the right side was partially filled; both lungs were compressed upward; no adhesions. On section, the lungs appeared mottled, and were hepatized in general appearance, but were otherwise healthy. Heart: on opening the pericardium a moderate amount of serous fluid vegetations was found on the mitral valve; weight, eleven ounces. Abdomen: entire cavity was greatly distended with a dark fluid full of broken-down lymph. The intestines were forced upward: there were slight evidences of beginning peritonitis. A portion of the ileum on the right side presented a black, unhealthy appearance, bordering on gangrene. The uterus was increased in size. The outer surface presented an irregular, mottled appearance; large veins covered its surface; at the fundus there appeared a spot about one inch in diameter, of a bluish tinge. On pressure by the finger the surface readily broke. Underneath was a cavity about the size of a large hickory-nut: it did not communicate with the interior of the uterus. On opening the uterus, its cavity was found to be almost obliterated: the tumor seemed to have entirely absorbed the true uterine tissue, with the exception of the neck. In the body of the tumor were observed small masses or growths varying in size up to that of an egg. The ovaries were small, and seemed to have participated in the general disease. Microscopic examination proved the tumor to be of the adeno-sarcomatous variety.

"At first I was convinced that I had a case of extra-uterine pregnancy; but the peculiar hardness of the tumor made me doubtful. Here was a patient who had never had any uterine ailment. She marries, becomes pregnant; at the end of the third month, without any premonition, while quietly walking, she is seized with pain of an excruciating nature in the right side, goes to bed and remains quiet; the next day blood flows from the vagina. She

remains comparatively well for two and a half months more, when she is again suddenly seized with pain in the same side, followed by peritonitis. A tumor is found in the affected side; the uterus is enlarged, but not sufficiently so for a five-and-a-half-months' pregnancy, the os giving no signs of that softening which should accompany pregnancy. Could we have a group of symptoms more allied to those of extra-uterine pregnancy?"

Dr. J. M. KEATING made some remarks on *Infant-Feeding*. He said, "At my request, Dr. Charles Potts has instituted a series of experiments which have a decided practical value, and we hope to present them to this Society at an early date; but I desire to place on record a statement of the results so far reached, which appear to be interesting and important. The question often arises, Is it of advantage, or not, for an infant to be partly nursed and partly bottle-fed? What action has milk upon starch, if any? To answer this, the following tests were made: (1) Sample of milk composed of the milk of several women. A quantitative estimation of the sugar in it by Fehling's method showed 6.84 per cent.; 10 c.c. of this milk were then taken and ½ gramme of powdered starch added, allowed to stand at a temperature of 99° for thirty minutes, after which 5 c.c. diluted with 45 c.c. of distilled water were tested, and showed 8.62 per cent. of sugar. The other 5 c.c., after standing sixty minutes, gave 9.09 per cent. (2) Another sample found to contain 7.14 per cent. of sugar had ½ gramme of powdered starch added as in No. 1. In thirty minutes it gave 9.80 per cent. of sugar in 5 c.c. The other 5 c.c., after remaining sixty minutes, gave 8.62 per cent. Possibly part of the sugar deposited and was drawn off with the first 5 c.c. (3) Another sample showed 6.32 per cent. of sugar, and after the starch was added, as before, gave in the first 5 c.c. 8.19 per cent., in the next 5 c.c. 7.93 per cent. These investigations showed that the women's milk gave an increase of sugar after digestion with starch.

"Experiment 4. A sample of cow's milk was tested and found to contain 3.87 per cent. of sugar: to this was added ½ gramme of starch to 10 c.c. At the end of thirty minutes 5 c.c. diluted with 45 c.c. of distilled water showed no increase of sugar. (5) A sample of cow's milk gave 4 per cent. of sugar, and was treated as before, but at the end of thirty minutes, and then sixty minutes, it gave the same result. (6) Another sample of cow's milk gave 3.703 per cent. of sugar; it was treated as before with same amount of starch. In thirty minutes 5 c.c. gave same result; in sixty minutes 5 c.c. gave same result. These investigations show that cow's milk gave no increase of sugar after adding starch. Does the acidity of cow's milk prevent the sugar-change? Does the sugar-change continue in an acid medium? (7) Took another sample of human milk from one woman. It yielded 6.25 per cent. of sugar; added starch as before. In thirty minutes 5 c.c. gave 7.14, and in sixty minutes 5 c.c. gave 7.6 per cent. Took 10 c.c. of this milk (6.25 per cent. sugar) and added a few drops of pure dilute hydrochloric acid, enough to acidulate it faintly, and then added ½ gramme of starch, and let it stand as before. In thirty minutes 5 c.c. gave 6.41 per cent., and in sixty minutes 5 c.c. gave 7.35 per cent. of sugar. (8) Another sample of woman's milk, without starch, gave 6.17 per cent.; with starch, 7.24 per cent.; 10 c.c. of the same acidulated with hydrochloric acid, (C. P.) diluted, gave in thirty minutes 7.35 per cent. In these tests 10 c.c. of Fehling's solution were used with 40 c.c. of distilled water.

"If future investigations prove the correctness of these statements, we may safely assert that the nursing woman may advantageously supplement her breast-milk with some well-prepared digestible form of food containing a small quantity of starch, and also that the amylolytic ferment will remain active in the slightly acid stomach of the infant."

W. H. H. GITHENS,
Secretary.

NEW YORK PATHOLOGICAL SOCIETY.

A STATED meeting was held September 9, 1885, the President, JOHN A. WYETH, M.D., in the chair.

HYDATIFORM MOLE.

Dr. H. J. BOLDT presented the specimen, which was chiefly of interest because of the condition of the patient at the time it was removed. She had been flowing profusely, and at the time he saw her the pulse was almost imperceptible. A vaginal tampon had proved of no avail. He at once dilated the cervix with a sponge tent and removed the hydatid mole, which was slightly adherent to the fundus and sides of the uterus. He thought the patient would have died within twenty-four hours if he had not adopted the measure of immediately dilating the cervical canal to discover and remove the cause of the hemorrhage.

OSTEITIS FOLLOWING VACCINATION.

Dr. W. P. WATSON presented a girl, aged 5 years, whose family history was good. She had been well until two years of age, when she was vaccinated. Three days afterwards she was obliged to go to bed. The mother noticed a swelling and redness at the point of inoculation, and also below on the forearm, which by the sixth day showed marked inflammation. A week later a swelling also appeared on the right arm, and, later, one on the scapula and one on the leg. Abscesses formed which discharged unhealthy pus for

about two years, and during the last year several spiculæ of bone were discharged from the sinus on the left forearm. At present the sinuses were all closed, but the left elbow was anchylosed. The question arose as to a possible causative relation of the vaccine inoculation to the osteitis which followed.

Dr. BOLDT asked whether any traumatism took place after the child was vaccinated, and mentioned a case in which multiple bone-abscesses followed vaccination. The mother first denied that the child had sustained any injury at the point of inoculation, but it was subsequently discovered that the child had received a slight injury during the mother's absence which gave rise to erysipelatous swelling.

Dr. HEINEMAN thought a latent strumous tendency may have existed which the vaccinia caused to be made manifest.

The PRESIDENT said that many cases of osteitis occur like the one presented, in which there had been no vaccination, and he therefore could not see why the two conditions may not have been a simple coincidence in this case.

Dr. W. M. CARPENTER remarked that, so far as his experience went, the local manifestations following the use of bovine virus were much more severe than those following the use of humanized virus.

Dr. MESSENGER and Dr. J. LEWIS SMITH thought that vaccinia may have called out a latent tendency, the same as occurred at times with scarlet fever, etc. Dr. Smith recalled the case of a child with marked strumous tendency dating back to vaccination. The vaccine inoculation had probably acted as the exciting cause.

IDIOPATHIC NEPHRITIS DURING THE EARLY MONTHS OF INFANCY.

Dr. J. LEWIS SMITH presented some specimens which were referred to the microscopical committee for further examination. The case was that of a wet-nursed baby, born January 28, 1885, an inmate of the New York Infant Asylum. It was seen but two or three times by Dr. Smith. On the 15th of July, when nearly six months old, the mother called attention to the fact that the child had not passed urine for some hours. Some sweet spirit of nitre restored the secretion. The urine was not examined. There had been no scarlet fever or diphtheria in the institution. Five days later the mother said the urine was again suppressed, but it was restored by the same remedy used as before. The child then did well until July 31, when diarrhœa occurred. This was so far checked within two days that not more than four passages occurred during the twenty-four hours. But the child remained unwell. August 2 it had convulsions, lasting not longer than five minutes. Following the convulsions there were marked nervous symptoms for about three days. Afterwards the child did not cease, during its waking hours, to roll its head. During the last two weeks of life it had occasional cough. The loss of flesh was slight. Death occurred on the 1st of September. During the last month the morning temperature had remained most of the time at about 100°; the evening temperature from two to three degrees higher. The highest temperature was 106°.

The autopsy was made by Dr. C. A. Dana. About an ounce and a half of serum, lying external to the brain, escaped on removing the calvaria. The brain had not yet been cut. The lungs showed marked hydrostatic congestion. The surface of the stomach was congested, showing evidences of gastritis. Although there had been diarrhœa for six weeks, the mucous membrane of the intestine was pale: there was no reference in the report to thickening of the membrane. The liver and spleen were congested. The lesions of principal interest were in the kidneys. These organs were enlarged; the right kidney showed the cortex thickened and pale, the pyramids congested, and there were hemorrhagic spots; the membrane lining the pelvis and calices was deeply congested. The left kidney was intensely congested, the pyramids and cortex being of one color. The bladder showed catarrhal inflammation. The urine contained mucus and a large amount of albumen; also of hyaline, granular, and epithelial casts. Dr. Dana had pronounced the cause of death to be acute nephritis. Dr. Smith thought that idiopathic nephritis occurred in young infants more frequently than is commonly supposed.

Dr. BOLDT said he had to-day made an autopsy on a child 13 months old, which gave a similar history, except as regarded the nervous symptoms, and he found signs of acute nephritis.

PERFORATING ULCER OF THE DUODENUM.

Dr. FRANK FERGUSON presented the duodenum removed from the body of a man 45 years of age, a tailor, who, when he entered the New York Hospital, was unable to give a satisfactory history in English. It was learned, however, that he had been sick with pain in the stomach and constipation for a month. He died two days after admission. Vomiting occurred several times. The abdomen was tender and retracted. There was an ulcer of the duodenum, the base of which was nearly an inch in diameter, circular, the other surface triangular; also evidence of peritonitis of perhaps two months' duration.

Dr. Ferguson had seen three cases of perforation of the duodenum, and in all the peritonitis was latent and not diagnosticated. Perhaps the withdrawal of some of the fluid within the peritoneal cavity would throw some light on the diagnosis.

CARDIAC DILATATION AND HYPERTROPHY; INTRA-VENTRICULAR OPENING; VEGETATIONS IN THE RIGHT AS WELL AS IN THE LEFT SIDE OF THE HEART.

Dr. FERGUSON also presented the heart removed from the body of a boy aged 13 years, who had certain pains suspected to be rheumatic, and who had also suffered from labored breathing and oppression in the chest. On admission to the hospital he was well nourished, but anæmic; slight general anasarca; the sternum and the jugular veins prominent; the cardiac area increased; the apex-beat could not be felt; there was a distinct epigastric beat; there was a loud blowing murmur in the seventh intercostal space, on the nipple-line, transmitted to the left, more marked on inspiration; in the second intercostal space, just to the right of the sternum, was a double systolic murmur, transmitted upward; the pulse regular and of fair force; inspiration everywhere jerky. During the first part of the boy's residence in the hospital he responded well to stimulants. At the end of ten days he was allowed to dress himself and sit in a chair. But he soon began to suffer from distressing dyspnœa and pain in the abdomen. He gradually failed; anasarca became more marked, the heart's action more rapid and feeble. He died the 5th of September; respiration 110, pulse from 120 to 140.

At the autopsy the heart was found to be the organ of chief interest. It was dilated, slightly hypertrophied; a large opening existed through the intra-ventricular septum. There were vegetations on the aortic valves, and also on the tricuspid and pulmonary valves. Dr. Ferguson thought the vegetations may have found their way from the left side of the heart through the intra-ventricular opening into the right side. At any rate, vegetations in the right side of the heart were very rare.

REVIEWS AND BOOK NOTICES.

MANUAL OF DISEASES OF THE EAR. By THOMAS BARR, M.D., Surgeon to Glasgow Hospital for Diseases of the Ear, etc., etc. Glasgow: James Maclehose & Sons, 1884. Pp. 530, 8vo.

The object of this Manual, as stated in the author's preface, is to present the main facts of aural surgery in a form sufficiently concise and methodical to meet the wants of general practitioners and students of medicine. This object has been successfully attained, in our opinion, and we have before us a readable and helpful work. There are one hundred and fifteen engravings, most of them well executed. On page 381, however, Fig. 101 is poorly executed and of no practical value, as it portrays a very unusual occurrence,—viz., the projection of an aural polypus into the concha. The treatment of aural polypus, and in fact of all forms of aural disease, is rational and in accordance with the most acceptable rules.

The author unfortunately follows the now antiquated classification of aural polypi of Steudener, instead of the later and accepted one of Moos and Steinbrügge, or the similar one given in Burnett's "Treatise on the Ear," second edition, which is based on the special studies of Seiss and Chrystie and is in harmony with the teachings of Formad. The true classification, named in order of frequency, is—1, Granulation-tumors; 2, Soft papillomata; 3, Fibromata; 4, Myxomata; and not, as once given by Steudener,—1, Mucous polypi; 2, Fibrous polypi; and 3, Gelatinous polypi, or myxomata. This latter classification is not accepted nowadays by aural histologists.

The anatomy of the ear has been the recipient of considerable attention, though, considering the prominence which should be given to this part of all books on otology which aim to guide in teaching, the anatomical figures are very few. But, as a rule, they are good and well chosen, as for example the figure in the Appendix, p. 492, illustrative of the tympanic plexus of nerves (after Hirschfeld and Leveillé). On the whole, Dr. Barr's Manual furnishes a very interesting and convenient guide in the study and practice of otology. B.

A PRACTICAL TREATISE ON DISEASE IN CHILDREN. By EUSTACE SMITH, M.D., F.R.C.P., etc. New York, William Wood & Co., 1884. Cloth, 8vo, pp. 844.

This is not a reprint of an English book, but a work written for publication in this country by an author already well known as a writer upon children's diseases, with a large experience to which a service at the London Children's Hospital has largely contributed. The fruit of twenty years' study and observation, the present volume possesses special claims for consideration. In it the author undertakes to discuss the whole subject of disease in early life, dealing with the matter purely from a clinical stand-point, omitting from consideration those disorders which, like diabetes, present exactly the same characters in the child that they do in the adult. In the matter of treatment, diet and hygiene are kept prominently in the foreground, and the principle enunciated everywhere that the details of nursing should always take precedence of drug-giving. In some parts the author may be considered too conservative, as in the remarks on operative interference in cases of intussusception. The identity of membranous croup and diphtheria is held by Dr. Smith, and a stimulating and supporting treatment is strongly advocated. There is a marked contrast between this work and some

of the other standard works on diseases of children in the matter of references to authorities: the present work being largely the outcome of the clinical experience of the author, references are rarely given, although familiarity with current literature is evident. The style is easy, interesting, and clear, and the pathological discussions are concise, the therapeutical recommendations judicious. On the whole, the work is a valuable addition to our literature of diseases of children, and deserves to be widely read.

INDEX-CATALOGUE OF THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE, UNITED STATES ARMY. Authors and Subjects. Vol. VI. HEASTIE–INSFELDT. Washington, Government Printing-Office, 1885. Pp. 1051.

The sixth volume of this handsomely-printed catalogue completes the work to and beyond the ninth letter of the alphabet, and includes 7900 author-titles, representing 2543 volumes and 7250 pamphlets. It also includes 14,590 subject-titles of separate books and pamphlets, and 35,290 titles of articles in periodicals. The total number of book-titles contained in the six volumes which have appeared is 64,142, and of the journal articles, 219,154. In arrangement of matter and general appearance the volume corresponds with former issues of the series, which reflects honor upon American medicine.

HOLDEN'S ANATOMY.—A MANUAL OF DISSECTION OF THE HUMAN BODY. By LUTHER HOLDEN. Fifth Edition. Edited by JOHN LANGTON. With over Two Hundred Illustrations. Philadelphia, P. Blakiston, Son & Co., 1885. 8vo, cloth, pp. 886.

This practical anatomy is designed for study with the aid of dissection, beginning with the head and taking up *seriatim* the various organs and parts of the body. The descriptions are clear, the illustrations good, and the press-work and paper unexceptionable, as befits a work which has attained the dignity of a fifth edition. We notice short references to the functions of the spinal cord and to cardiac murmurs that are not strictly within the limits of a work on anatomy, but have failed to find a definition of the ciliary body.

GLEANINGS FROM EXCHANGES.

ARSENIC IN COMMERCIAL CHLORIDE OF LIME AND CHLORATE OF POTASH.—In a paper read before the Paris Pharmaceutical Society, M. L. Garnier recalled that some four years since he and M. Schlagdenhauffen had detected arsenic in certain commercial hypochlorites. The discovery was accidental, and occurred in investigating a fatal poisoning accident caused by chloride of lime. The chloride was found to contain arsenic, in proportion insufficient, however, to cause rapid death. This incident proved the importance, in medico-legal cases, of never adding any preservative or disinfecting agent to the organs or portions of organs set aside for chemical analysis.

Lately another observation has been made, equally interesting to the toxicologist,—namely, that chlorate of potassium of commerce is also apt to contain arsenic. In this case the contamination proceeds directly from that already indicated, since chlorate of potash in industry is usually manufactured from chloride of lime. The discovery was made in the following manner. In Fresenius and Babo's process for destroying organic matters, it will be remembered, chlorate of potassium is used as a preliminary step before other tests are applied. The stock of chlorate of potash in the laboratory having run out, a new lot was ordered; but before accepting the salt it was subjected to examination, and three different samples were found to be contaminated with arsenic. The proportion is very small, it is true, but yet sufficient to be clearly detected in twenty grammes of the salt decomposed with pure muriatic and sulphuric acids and introduced into Marsh's apparatus.

Although for many years every specimen of chlorate employed in the laboratory has thus been tested, it is the first time arsenic was ever detected in the chemical. Be the impurity due to the chloride of lime used in one manufacturing process, or to the chlorine gas run into the mixture of lime and potassium chloride according to another method, the fact remains that the chemist must always be on his guard. By the way, this is a curious peregrination of arsenic, much resembling the story of the house that Jack built. The chlorate of potash took the arsenic from the chloride of lime, which took it from the chlorine, which took it from the sulphuric acid, which took it from the natural pyrites containing arsenic.—*Druggists Circular*, September.

KERATIN-COATED PILLS.—Dr. Unna, of Hamburg, has discovered a coating for pills which is likely to prove even more useful than it is ingenious. The task which he set himself was to find a coating which would resist the solvent action of the gastric juice, but would dissolve in the small intestine. This he has succeeded in doing by the use of keratin, a substance extracted from the shavings of ox- or buffalo-horn. The shavings are first digested by artificial gastric juice (pepsin solution with one-per-cent. hydrochloric acid), and are then macerated for weeks in ammonia. When the ammonia is driven off, a gummy solution of keratin is left, from which, by drying, keratin is obtained in the form of shining, bright, yellow flakes.

A pill which is to be covered with keratin

requires to be prepared in a special manner. The medicine employed is first rubbed well up with cacao-butter or tallow, with the addition of some indifferent powder if necessary, and pills are made. The pills are then covered with cacao-butter, so as to prevent any of the medicine from being on the surface of the pill. When the pill is hard, it receives one or, better, two or three coatings of the solution of keratin. If the substance of which the pill is made renders solution in ammonia inconvenient, a solution in glacial acetic acid may be used. Keratin-coated pills are insoluble in the gastric juice, but dissolve as soon as they enter the small intestine, and have therefore a special value in cases in which medicines which have an irritating effect on the mucous membrane of the stomach are to be administered for any length of time,—for example, when arsenic, salicylic acid, creasote, copaiba, cubebs, tartar-emetic, and vermifuge medicines are prescribed.

The method is further useful when medicines are given which are affected by digestion in the stomach, forming insoluble precipitates with pepsin and peptones,—for example, tannin, alum, acetate of lead, subnitrate of bismuth, nitrate of silver, bichloride of mercury, etc.; and, further, in the case of medicines which it is desired should enter the intestine in as concentrated a form as possible, and medicines which are given with the view of affecting favorably diseased conditions of the mucous membrane of the stomach without exercising an irritating local action,—for example, iron, quinine, arsenic in catarrh of the stomach arising from ammonia.—*British Medical Journal.*

MICROZYMES OF JEQUIRITY. — Notwithstanding the excellent advocacy of the "non-bacillar nature of Abrus poison" by Drs. Warden and Waddell, the subject has not been settled. Sattler, it will be remembered, believed in the existence of a specific bacillus of jequirity. Cornil maintained that the subcutaneous injection of small doses of the poison conferred immunity from subsequent inoculations. This also was opposed by Drs. Warden and Waddell. MM. J. Bechamp and A. Dujardin have recently worked at the question. They find that the microzymes isolated from the seeds of jequirity possess active phlogogenic properties, as does the jequirity infusion itself. Further, these agents can fluidify starch, and they can develop into bacteria. Injected into the veins, they produce a disease and death altogether like that due to the jequirity infusion. These observers assert that the activity of a maceration of jequirity is not dependent on the presence of microbes from the air.—*Lancet.*

INTRAVENOUS INJECTION OF OXYGENATED WATER CONDEMNED.—M. Laborde, at the Academy of Sciences, speaking upon the proposed use of oxygenated water as a germicide in infectious diseases by injecting it into the veins, stated that it is instantly decomposed when brought in contact with the fibrinous material of the blood, causing much frothing, and being liable to give rise to fatal embolism. This method of introducing oxygen is, therefore, to be condemned in practice.

MISCELLANY.

MEETING OF COMMITTEE ON ORGANIZATION OF THE INTERNATIONAL MEDICAL CONGRESS.—A meeting was held September 3, in the city of New York, at which Dr. R. Beverley Cole presided, and Dr. J. V. Shoemaker acted as secretary.

The following "Rules" were unanimously adopted:

1. The Congress shall consist of members of the regular profession of medicine, and of such other scientific men as the Executive Committee of the Congress may see fit to admit, who shall have inscribed their names on the register and shall have taken out their tickets of admission.

2. The dues for members of the Congress shall be ten dollars each for members residing in the United States.

There shall be no dues for members residing in foreign countries.

Each member of the Congress shall be entitled to receive a copy of the "Transactions" for 1887.

3. The Congress shall be divided as follows, into seventeen Sections:

I. General Medicine; II. General Surgery; III. Military and Naval Surgery; IV. Obstetrics; V. Gynæcology; VI. Therapeutics and Materia Medica; VII. Anatomy; VIII. Physiology; IX. Pathology; X. Diseases of Children; XI. Ophthalmology; XII. Otology and Laryngology; XIII. Dermatology and Syphilis; XIV. Public and International Hygiene; XV. Collective Investigation, Nomenclature, Vital Statistics, and Climatology; XVI. Psychological Medicine and Diseases of the Nervous System; XVII. Dental and Oral Surgery.

4. The General Meetings of the Congress shall be for the transaction of business and for addresses and communications of general scientific interest.

5. Questions and topics that have been agreed upon for discussion in the Sections shall be introduced by members previously designated by the titular officers of each Section. Members who have been appointed to open discussions shall present in advance statements of the conclusions which they have formed as a basis for debate.

6. Brief abstracts of papers to be read in the Section shall be sent to the Secretaries of the proper Sections on or before April 30, 1887.

These abstracts shall be treated as confidential communications, and shall not be published before the meeting of the Congress.

Papers relating to topics not included in the lists of subjects proposed by the officers of Sections may be accepted after April 30, 1887; and any member wishing to introduce a topic not on the regular lists of subjects for discussion shall give notice of the same to the Secretary-General at least twenty-one days before the opening of the Congress, and such notices shall be promptly transmitted by the Secretary-General to the Presidents of the proper Sections. The titular officers of each Section shall decide as to the acceptance of such proposed communications and the time for their presentation.

7. All formal addresses, scientific communications and papers presented, and scientific discussions held at the General Meetings of the Congress, shall be promptly given in writing to the Secretary-General; and all papers presented and discussions held at the meetings of the Sections shall be promptly given in writing to the Secretaries of the proper Sections.

No communication shall be received which has already been published, or read before a society.

The Executive Committee, after the final adjournment of the Congress, shall direct the editing and the publication of its "Transactions," and shall have full power to publish the papers presented and the discussions held thereon, either in full, in part, or in abstract, as in the judgment of the Committee may be deemed best.

8. The official languages of the Congress shall be English, French, and German.

In the meetings of the Sections, no member shall be allowed to speak for more than ten minutes, with the exceptions of the readers of papers and those who introduce subjects for discussion, who may each occupy twenty minutes.

9. The rules and programmes shall be published in English, French, and German.

Each paper and address shall be printed in the "Transactions" in the language in which it was presented, and preliminary abstracts of papers and addresses also shall be printed each in the language in which it is to be delivered.

All discussions shall be printed in English.

10. The President of the Congress, the Secretary-General, the Treasurer, the Chairman of the Finance Committee, and the Presidents of the Sections, shall together constitute an Executive Committee of the Congress, which Committee shall direct the business of the Congress, shall authorize all expenditures for the immediate purposes of the Congress, shall supervise and audit the accounts of the Treasurer, and shall fill all vacancies in the offices of the Congress and of the Sections. This Committee shall have power to add to its membership, but the total number of members shall not exceed thirty. A number equal to one-third of the members of the Committee shall constitute a quorum for the transaction of business.

11. The Officers of the Congress shall be a President, Vice-Presidents, a Secretary-General, four Associate Secretaries, one of whom shall be the French Secretary and one of whom shall be the German Secretary, a Treasurer, and the Chairman of the Finance Committee.

12. The officers of each Section shall be a President, Vice-Presidents, Secretaries, and a Council.

13. The officers of the Congress and the officers of the Sections shall be nominated to the Congress at the opening of its first session.

14. The Executive Committee shall, at some convenient time before the meeting of the Congress, prepare a list of foreign Vice-Presidents of the Congress and foreign Vice-Presidents of the Sections, to be nominated to the Congress at the opening of its first session.

15. There shall be a standing Committee on Finance, composed of one representative from each State and Territory, the District of Columbia, the Medical Department of the Army, the Medical Department of the Navy, and the Marine Hospital Service.

The Chairman of the Finance Committee shall report to the Executive Committee of the Congress.

Each member of the Finance Committee shall appoint a local Finance Committee for his State, Territory, District, or Government Department, consisting of one or more members from each Government Department or Congressional District.

Each local Finance Committee shall report through its Chairman to the Chairman of the Finance Committee of the Congress.

It was also

"*Resolved*, That the representative or representatives in this Committee from each State, Territory, or Government Department shall organize the Financial Committees in their respective States, Territories, or Government Departments."

The following gentlemen were named as officers of the Congress:

President.—Austin Flint, M.D., LL.D., New York.

Vice-Presidents.—W. O. Baldwin, M.D., Alabama; H. I. Bowditch, M.D., Massachusetts; William Brodie, M.D., Michigan; Henry F. Campbell, M.D., Georgia; W. W. Dawson, M.D., Ohio; R. Palmer Howard, M.D., Canada; E. M. Moore, M.D., New York; Tobias G. Richardson, M.D., Louisiana; Lewis A. Sayre, M.D., New York; J. M. Toner, M.D., District of Columbia; the President of the American Medical Association; the Surgeon-General of the United States Army; the Surgeon-General of the United

States Navy; the Supervising Surgeon-General of the United States Marine Hospital Service.

Secretary-General.—Nathan S. Davis, M.D., LL.D., Illinois.

Treasurer.—E. S. F. Arnold, M.D., M.R.C.S., New York.

Chairman of the Finance Committee.—Frederick S. Dennis, M.D., M.R.C.S., New York.

Executive Committee of the Congress.—Austin Flint, M.D., LL.D., President of the Congress; Nathan S. Davis, M.D., LL.D., Secretary-General; E. S. F. Arnold, M.D., M.R.C.S., Treasurer; Frederick S. Dennis, M.D., M.R.C.S., Chairman of the Finance Committee.

Presidents of the Sections.—A. B. Arnold, M.D., General Medicine; William T. Briggs, M.D., General Surgery; Henry F. Smith, M.D., Military and Naval Surgery; DeLaskie Miller, M.D., Obstetrics; Robert Battey, M.D., Gynæcology; F. H. Tirrell, M.D., Therapeutics and Materia Medica; William H. Pancoast, M.D., Anatomy; John C. Dalton, M.D., Physiology; E. O. Shakespeare, M.D., Pathology; J. Lewis Smith, M.D., Diseases of Children; A. W. Calhoun, M.D., Ophthalmology; S. J. Jones, M.D., Otology and Laryngology; A. R. Robinson, M.D., Dermatology and Syphilis; Joseph Jones, M.D., Public and International Hygiene; Henry O. Marcy, M.D., Collective Investigation, Vital Statistics, and Climatology; John P. Gray, M.D., LL.D., Psychological Medicine; Jonathan Tafft, M.D., Dental and Oral Surgery.

Local Committee of Arrangements (with power to increase their number).—A. Y. P. Garnett, M.D., Chairman, District of Columbia; the Surgeon-General U. S. Army; the Surgeon-General U. S. Navy; the Supervising Surgeon-General U. S. Marine Hospital Service; J. H. Baxter, M.D., District of Columbia; C. H. A. Kleinschmidt, M.D., District of Columbia; N. S. Lincoln, M.D., District of Columbia; J. M. Toner, M.D., District of Columbia; and such additional members of the profession in the District of Columbia as the Executive Committee of the Congress may select.

Lists of Vice-Presidents, Secretaries, and Councilmen for each Section were named by the Committee of Arrangements, but as it was not practicable to ascertain at once who would accept the places assigned them, or who of those who had been announced in the medical press as declining to accept positions before the present rules and organization had been adopted, as given heretofore, might wish to withdraw such declination, the final adjustment of these offices was referred to the Executive Committee of the Congress, and all correspondence in relation thereto was transferred to the Secretary-General of the Congress.—*Journal of the American Medical Association.*

OFFICIAL LIST

OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U.S. ARMY FROM SEPTEMBER 1, 1885, TO SEPTEMBER 12, 1885.

MAGRUDER, D. L., LIEUTENANT-COLONEL AND SURGEON.—Granted leave of absence for fifteen days. S. O. 201, A. G. O., September 3, 1885.

MCKEE, J. C., MAJOR AND SURGEON.—Sick-leave still further extended three months on surgeon's certificate of disability. S. O. 204, A. G. O., September 7, 1885.

MIDDLETON, PASSMORE, MAJOR AND SURGEON.—Assigned to duty as attending surgeon at these Headquarters, *vice* Major J. V. D. Middleton, surgeon, hereby relieved. S. O. 121, Department of the Missouri, August 28, 1885.

GIRARD, ALFRED C., CAPTAIN AND ASSISTANT-SURGEON.—Assigned to duty as post-surgeon at Boise Barracks, Idaho Territory. S. O. 142, Department of the Columbia, August 22, 1885.

PATZKI, J. H., CAPTAIN AND ASSISTANT-SURGEON.—Assigned to duty as post-surgeon at Jackson Barracks, New Orleans, Louisiana. S. O. 192, Department of the East, September 8, 1885.

DAVIS, WILLIAM B., CAPTAIN AND ASSISTANT-SURGEON.—Having reported for orders from leave of absence, assigned to duty at Fort Porter, New York, as post-surgeon. S. O. 183, Department of the East, August 28, 1885.

KANE, JOHN J., CAPTAIN AND ASSISTANT-SURGEON.—Upon expiration of his present leave of absence, to be relieved from duty at Willet's Point, New York Harbor, and to report to commanding general, Department of Texas, for assignment to duty. S. O. 201, A. G. O., September 3, 1885.

BANISTER, JNO. M., CAPTAIN AND ASSISTANT-SURGEON.—Assigned to temporary duty at camp of competitors at Creedmoor, New York, arriving not later than September 4, 1885. S. O. 58, Division of the Atlantic, August 31, 1885.

RICHARD, CHARLES, CAPTAIN AND ASSISTANT-SURGEON.—To be relieved from duty in Department of the East and to report to the commanding officer, Willet's Point, New York, for duty at that station. S. O. 201, c. s., A. G. O.

POLHEMUS, A. S., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—When relieved at Fort McDermit, Nevada, assigned to temporary duty at Presidio of San Francisco, California. S. O. 87, c. s., Department of California.

KENDALL, WILLIAM P., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Relieved from duty at Presidio of San Francisco, California, and assigned to duty as post-surgeon at Fort McDermit, Nevada, relieving Assistant-Surgeon Polhemus. S. O. 87, Department of California, August 31, 1885.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE U.S. NAVY FROM AUGUST 29, 1885, TO SEPTEMBER 5, 1885.

HENRY STEWART, SURGEON.—Leave of absence extended one year from October 15, with permission to remain abroad.

JOHN M. STERLE, PASSED ASSISTANT-SURGEON.—Detached, September 1, from "Constellation" and report for duty at Naval Academy, Annapolis, Maryland.

GEORGE A. BRIGHT, SURGEON.—Detached, September 1, from "Constellation" and wait orders.

S. H. DICKSON, PASSED ASSISTANT-SURGEON.—Ordered to Naval Academy, Annapolis, Maryland, as relief of Passed Assistant-Surgeon A. A. Austin.

HENRY B. FITTS, ASSISTANT-SURGEON.—Detached from Coast-Survey steamer "Gedney" and wait orders.

A. A. AUSTIN, PASSED ASSISTANT-SURGEON.—Detached from Naval Academy, Annapolis, Maryland, and ordered to Coast-Survey steamer "Gedney," to relieve Assistant-Surgeon H. B. Fitts.

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